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RCHASING

CONSOLIDATED WITH • *The Executive* **PURCHASER**

JUN 4 1937

PURCHASING

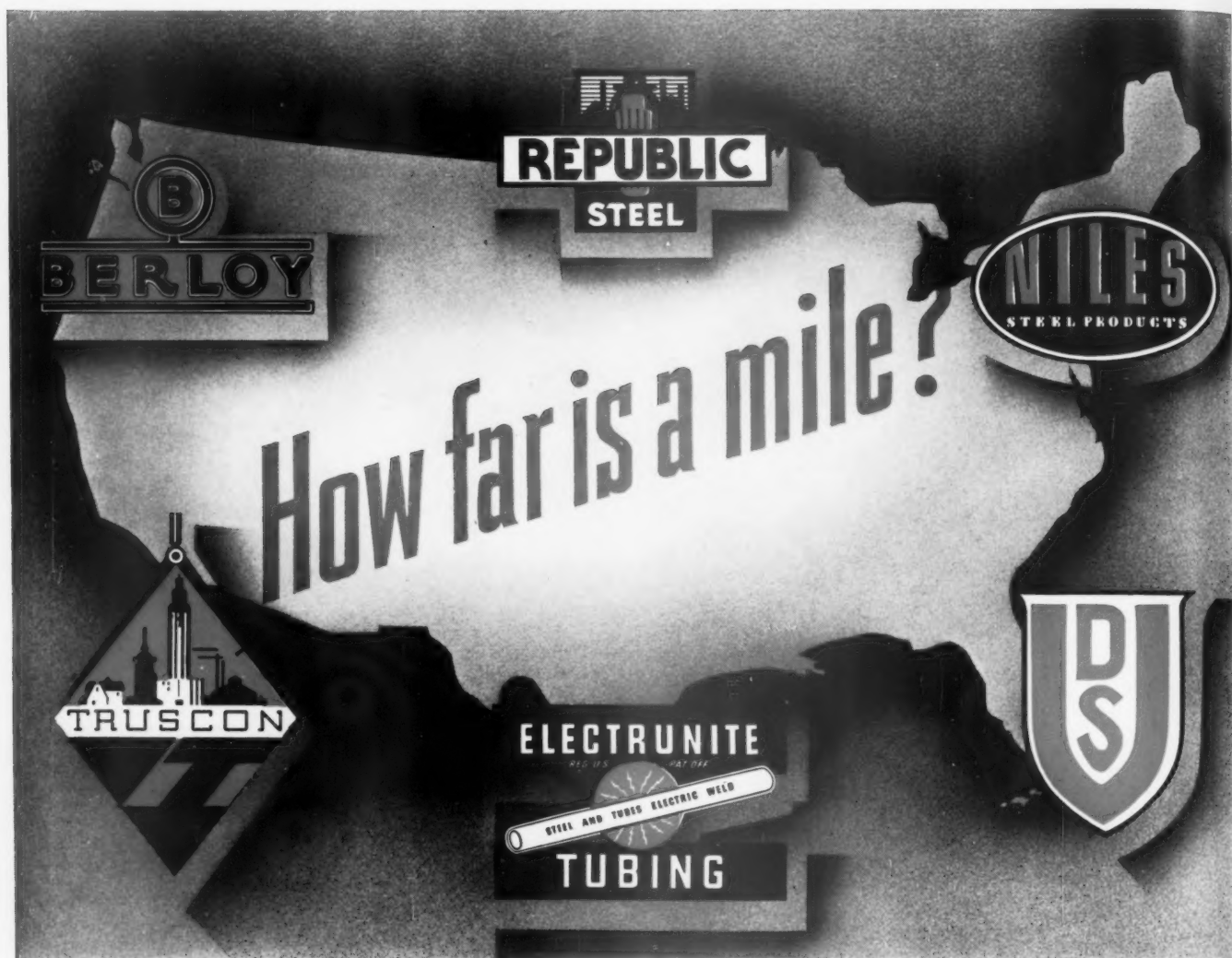


"E. B."
—see page 17

MAY 1937

Vol. V No. 5





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(Another story of Goodrich development work appears on inside back cover page)

PURCHASING

*Established 1915 as "The Purchasing Agent"
Consolidated with "The Executive Purchaser"*

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N.A.P.A.
Convention
Report**

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D. N. CORTRIGHT,
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**VOLUME V
NUMBER 5**

May 1937

PAGE 2

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PURCHASING

MAY

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EXECUTIVES in charge of buying have adopted Long Distance for accurately gauging supply and demand in all markets. By telephone they cover suppliers *rapidly and economically* . . . discuss specifications . . . make advantageous commitments . . . follow shipments through from factory, to freight yard, to car-siding. Long Distance has long been a valuable assistant to purchasing

executives in every type of business, both small and large. But with competition once more keenly alive . . . with rapidly changing prices . . . it is doubly valuable.

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WILLIAM P. HELMS
Vice-President

May 10, 1937

IS A "STAMPEDE" IN COMMODITY PRICES NOW UNDER WAY?

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Under such conditions and as a matter of protection—and profit—which commodities should be bought now?—which avoided? To answer these inevitable questions, we are now preparing two critical lists of commodities as follows:

- (1) A group of 43 commodities that should now be purchased from the standpoint of protection for several months ahead. (INCREASE INVENTORIES BEFORE PRICES ADVANCE)
- (2) A list of 21 commodities that should be purchased upon a more conservative basis due to present conditions. (REDUCE INVENTORIES BEFORE PRICES WEAKEN)

Just because the trend of all commodities grouped as a whole seems to be upward is no safe reason why YOUR particular item will go up as well. In fact, we can spot thruout our lists of metals, fuels, industrial and agricultural commodities, building materials, and textiles many items that move contrary to the general trend of these groups.

TO BE ON THE SAFE SIDE, THEN, WE URGE THE CLOSEST STUDY OF EACH INDIVIDUAL COMMODITY ON THE BASIS OF ITS OWN PARTICULAR SET OF PRICE-CONTROLLING CONDITIONS.

Let us send you this critical list of commodities as soon as it is released and also each month our ten-page Commodity Analysis and Price Forecast Bulletin until December 1, 1937. The total cost for this significant help is \$6 which may be paid on receipt of our bill.

Just clip, sign and return this part of this page so that we may forward important current releases at once and the forthcoming two lists of commodities.

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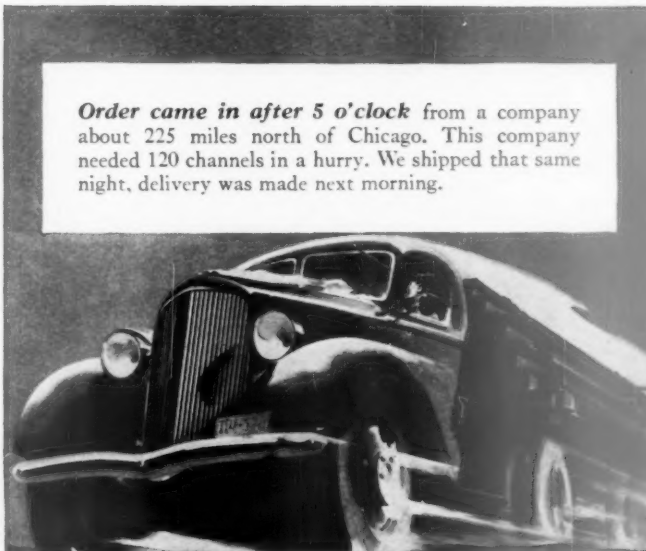
Wm. P. Helms, Vice Pres.

What we mean by "SCULLY SERVICE"...

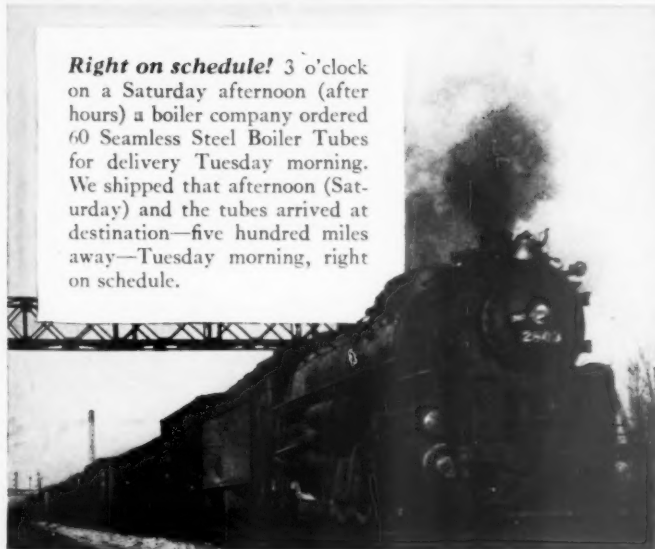


"You can get it here this afternoon? Good!"

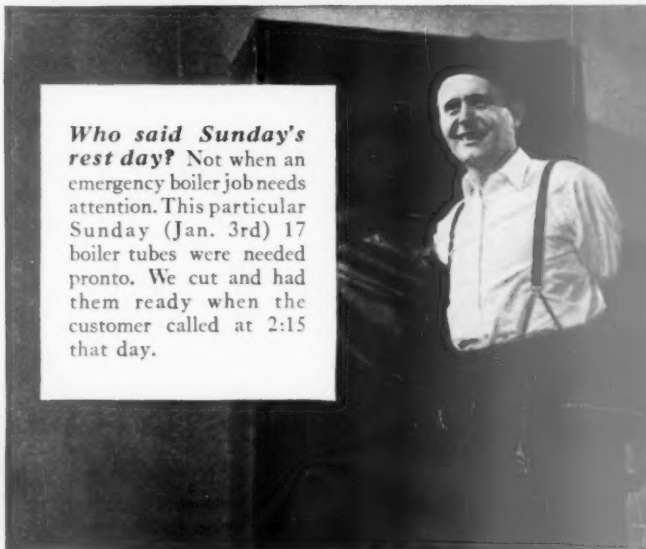
A foundry 25 miles distant phoned a rush order for angle iron, needed in an emergency. Order was placed at 11 o'clock. We made delivery at 2:30 that afternoon.



Order came in after 5 o'clock from a company about 225 miles north of Chicago. This company needed 120 channels in a hurry. We shipped that same night, delivery was made next morning.



Right on schedule! 3 o'clock on a Saturday afternoon (after hours) a boiler company ordered 60 Seamless Steel Boiler Tubes for delivery Tuesday morning. We shipped that afternoon (Saturday) and the tubes arrived at destination—five hundred miles away—Tuesday morning, right on schedule.



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NO
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Date.....193....

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This affidavit is used in common with other members and complies with all recommendations set down by the Sanitary Institute of America.

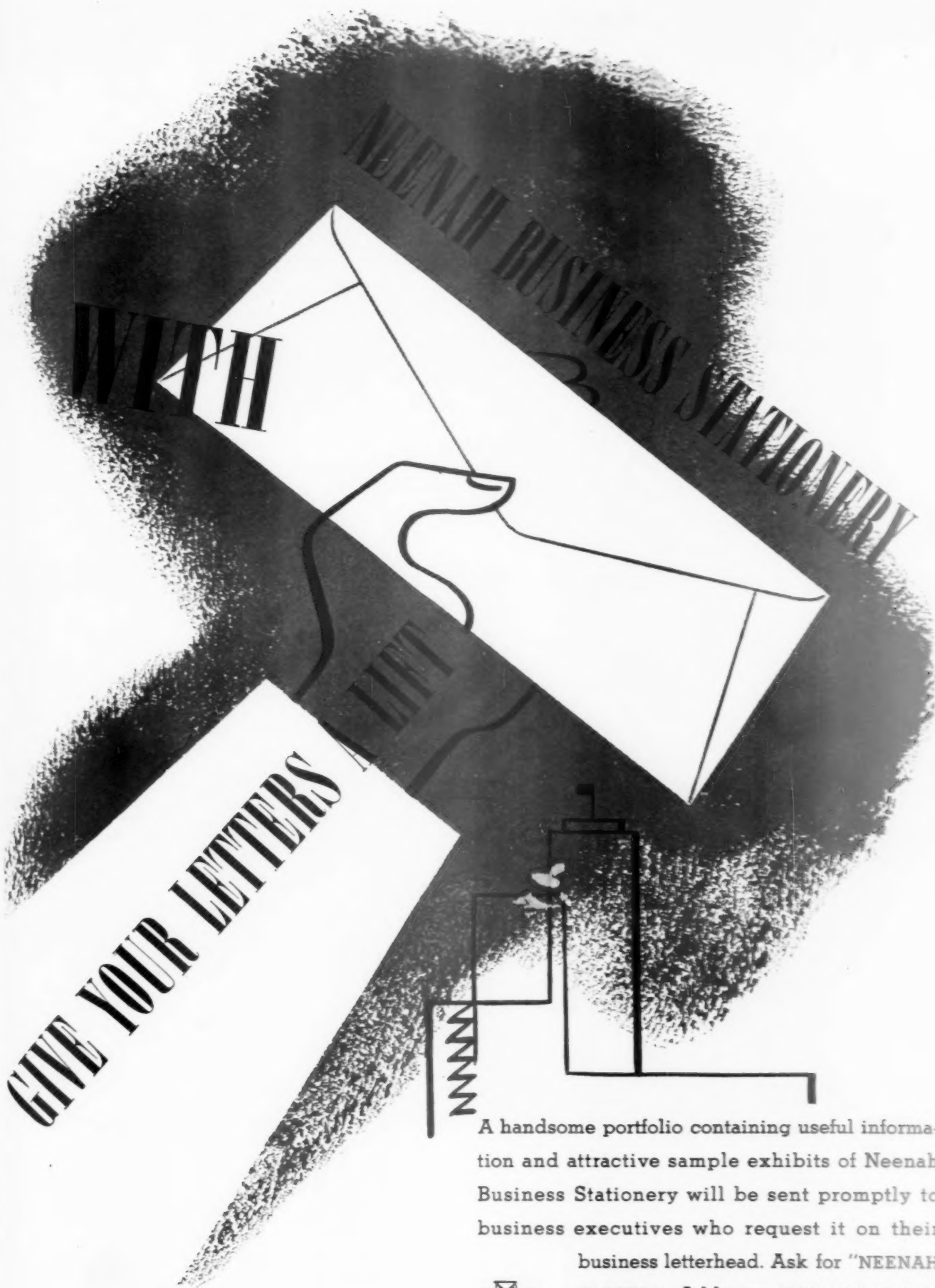
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MAY 1937

PAGE 7

Ryerson Flame Cut Plates Lower Mfg. Costs

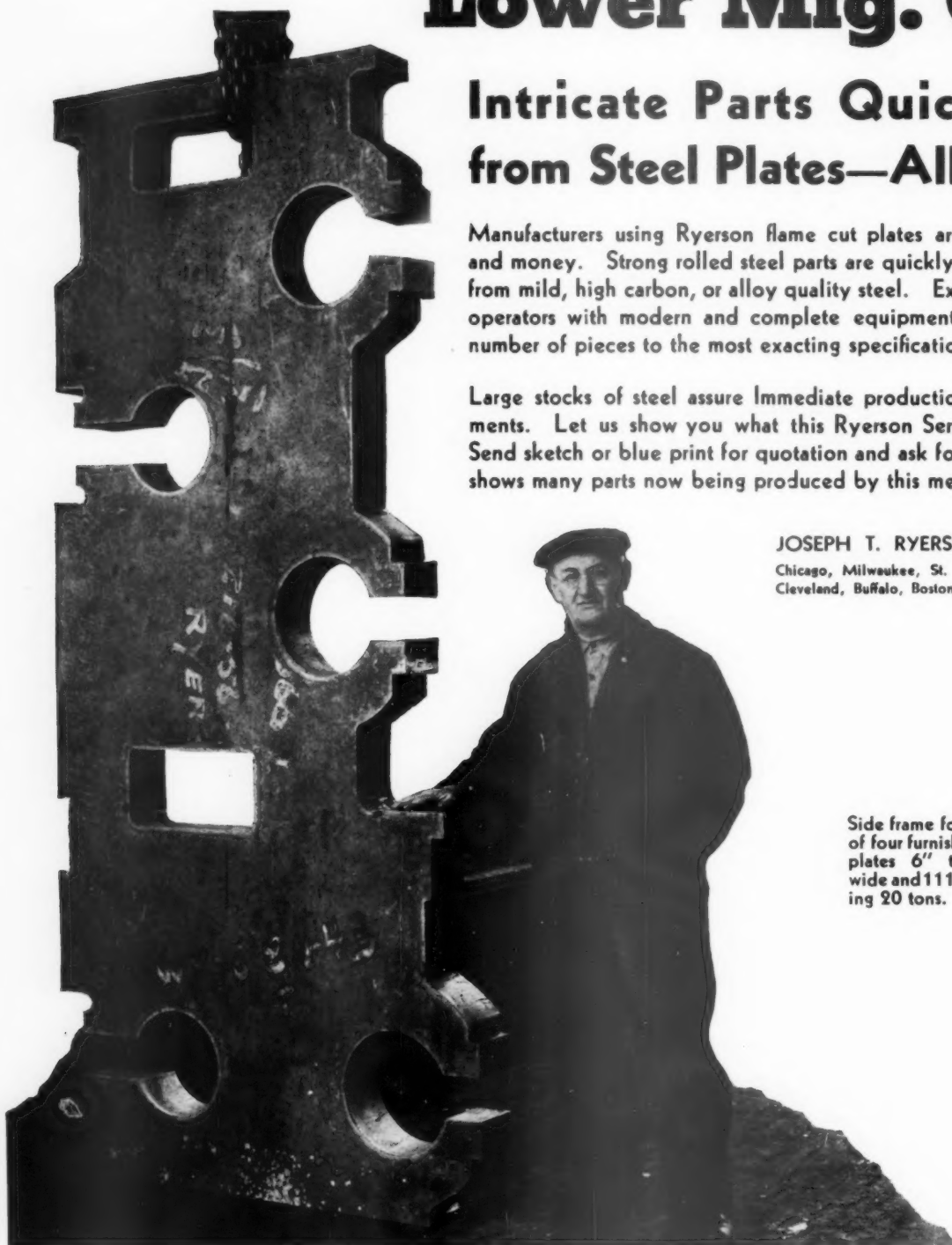
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Tool Steel
Floor Plates
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RYERSON

Inventory Profits

THE business record of early April was studded with numerous instances of notable inventory profits. Rubber statistics showed a discrepancy of 6,000 tons, with the inference that warehouse stocks of 6-cent rubber have not yet been completely drained. Concerns that are presumably in business for the purpose of fabricating copper told shareholders with much satisfaction of sizable profits realized through the resale of red metal stocks that had been favorably bought before the March price advances. Cost accountants in a score of industries were smugly contemplating the margins between actual inventory investments and the replacement costs upon which product prices are calculated.

Profits? Certainly. Smart purchasing? Well, strangely enough, though that is the interpretation which comes automatically to the lay mind, purchasing executives themselves have evinced but little pride in that phase of their accomplishment. They have found greater satisfaction in knowing that their companies have been kept in a competitive position despite rising material costs—and despite the broad declines that marked the latter half of the month.

Purchasing men are necessarily price-minded. That is very definitely a part of their function in the complete industrial picture. But, popular opinion to the contrary notwithstanding, it is not their interest or aim to keep their buying on a permanently depressed price plane at which no one can profit by selling them. One of the great organization lessons of the late depression was the futility of such a policy. Further, buyers know that they are infinitely more vulnerable in a falling market than in a healthy advancing market. They value a condition of sound stability as the basis of mutually profitable operation, far more than the prospect and the possibility—or even the fact—of profits resulting from market appreciation of stocks on hand.

The backlog of orders which constitute the present strength of cotton cloth, zinc, copper, steel, paper and other materials, are regarded by the purchasing men who placed those orders as so many commitments on behalf of their respective companies, and they are watching those commitments with the utmost care. They are unsound if industry has misread the prospect of sustained public purchasing power, and that is still a questionable factor in the light of continuing relief expenditures. Such an attitude is not indicative of any lack of faith; it is the prudent viewpoint that will do most to avoid the unfortunate extremes of boom and depression and their attendant dangers.

Purchasing agents are buying for use, and not for speculative profit. Following the reaffirmation of steel prices for the third quarter, it was a significant indication of reasoned confidence in sustained recovery that the reaction of purchasing men was to revise shipping instructions so as to spread deliveries more evenly over the next several months. In other words, they sought sound coverage of requirements that are actually in sight, at a reasonable level. Such purchasing is realistic, it is evidence of faith in business, and the best possible foundation for true market and industrial stability.

STUART F. HEINRITZ, EDITOR

TEAMWORK IN PURCHASING

The buyer's daily job, though nominally concerned with material requirements, is essentially a problem of human values and of human relationships

EDWARD T. GUSHÉE

Vice President

The Detroit Edison Company

TEAMWORK, WHETHER in our business or any other part of our lives, is the basic, underlying foundation for success, and, what is perhaps even more important, for contentment in our lives.

We purchasing agents deal largely with material things. The greater part of our lives is spent in thought and action directed toward obtaining the *things* which our businesses need. In our private lives we seem to be largely concerned about the possession of purchasable pleasures—things for our homes, for our bodies. In this we are no different than the rest of mankind. We all overemphasize the importance of the *things* of this world. We are likely to measure our success in our private lives by how many of these things, we can obtain, and in our corporate lives by how well we can buy them.

Back of all the engineering, the manufacture, the delivery, the possession, of material objects, we find personalities. There is no activity in life which can be a human activity except through and by human beings. Consequently, the most ever-present thing in our lives is our relation with others—getting along with ourselves and with the human family with whom we come in contact. This getting along with ourselves and with others is what psychology is all about.

PSYCHOLOGY HAS followed the path of other learned sciences in developing a very highly technical vocabulary. In this, it seems to me, it has done a disservice to us all. There are many definitions of psychology, but it all boils down to the art or science which teaches how to get along first with ourselves, and then with others—in longer words, the science of adjusting ourselves to our own environment.

Since teamwork is first and foremost a matter of psychology, let us refer briefly to certain psychological backgrounds.

Broadly speaking, there are three, perhaps four, major psychological schools of thought. Freud, at least in the popular conception, teaches that the motivation of human conduct comes entirely from sexual impulses. Just aside, let me say here that in his later work Freud has somewhat modified his earlier emphasis. Another school is that of Alfred Adler, a one-time Freudian student who took issue with him. He holds that human behavior is conditioned solely by the so-called inferiority complex, to which I shall refer later. Jung, another Freudian student, split with Freud and may be said to have combined certain elements of both the above schools. Then there is the fourth school, with which I personally have little patience. It is called the Behaviorist School, which absurd as it may seem, is a "school of thought holding that there is no such thing as thought,"¹ but merely reactions to environment and glandular activity.

It can be demonstrated that there is much in the Freudian theory. However, it relates in particular to abnormal psychology; though for the life of me I haven't yet been able to define what 'nor-

mal' really is in relation to psychological problems. That the so-called normal persons are conditioned by some of these Freudian concepts is probably true; but it has seemed to many that, from a practical, everyday, workaday viewpoint, the psychological theory which has at least a quicker adaptation to the day-to-day problems of the so-called normal human being is that school of thought so ably presented by Kunkel, an associate of Alfred Adler.

Adler's philosophy of human behavior is strikingly Christian in its concept. You remember the words of Our Lord Jesus Christ, "For whosoever would save his life shall lose it. . . ."² Adler draws this particular parallel in his teachings by pointing out that he who is constantly thinking of himself, of his aims, his ideals, and his fears, in a subjective way, is, to put it briefly, in for trouble. To quote from Kunkel's book, *Let's Be Normal*: "The Ego-ideal (ambition) is always distinguished by the fact that its possessor tries to make the material world serve him, while the objective human being places himself (i.e., his ego) at the service of the world."

NOW THIS ALL may seem a far cry from teamwork, but we can't play with the team and for the

¹ Dr. Bernard I. Bell.

² St. Mark, Chapter VIII, Verse 35.



E. T. GUSHÉE

team if we do not understand ourselves and the forces which motivate us. We all have in us at least two great fears: first, the fear of not being able to achieve our ambition or the goal which our mind has set for us; and second, the fear of economic insecurity. Whether we realize it or not, both of these fears condition our behavior toward others, and always condition it badly.

It is interesting to note that the braggart, the man who is always right in his own estimation, the swellhead, actually is throwing up before himself, by these means, a defense against his own feeling of inadequacy. The only man who has the courage to realize that from time to time he is wrong is the man possessed of quiet confidence in himself.

If it is true that no one can do good teamwork if he first of all does not know himself, where does this bring us? I have listened to many a sermon, many an address, which

besought that I know myself, but no one told me how disagreeable a job that really was, nor did they indicate how it could be done.

Now there's a reason for this. There is always the extreme difficulty of getting through to the inner consciousness by means of the spoken word. There is no slide rule, no all-embracing formula that can be applied to every individual. There is no speaker who can, in the course of a single address, point the way to each of us. There is only one bit of advice which is generally helpful. In recommending a book upon this subject (Kunkel's *Let's Be Normal*), the recommendation has been prefaced with the personal admonition, to wit, "It will be easy enough for you to see me, your friends and others in this book. That will do no good. Try to see if some of the things that are said are not equally applicable to yourself." More than that cannot be said, except to emphasize the platitude which we have already noted—that good teamwork is impossible without a real knowledge of the forces which motivate the individual.

THE WORD "TEAMWORK" brings to our minds an immediate analogy to football. We can think of our organizations as football teams. The general manager—quarterback—calls the play and directs the strategy. I like to think of the purchasing agent as the center, because actually in modern business organization the purchasing agent is in an ideal position, in the center of the company, to coordinate many of the activities. He passes the material to each member of the organization. He peculiarly is working with others. If the signal is for him to pass the ball to the half-back, and if, because of some ego demand, he flips it to the full-back, the team is not going to get anywhere. Likewise on defense, if he does not coordinate and cooperate with both the line and the backfield, much ground will be gained through the line and in the air at the expense of his team.

Being a coordinating, coopera-

tive agency, it is consequently all-important that a purchasing executive realize the importance of, and need for, teamwork, and be able to induce that spirit in others. Teamwork involves a less direct compensation to one's self in favor of greater results for the group. It implies a less direct exhibition for the individual, and better results by the team. It says, "Avoid grandstanding and get action by group effort!"

Let us look at our own profession for a moment. A purchase which is based upon proper specifications for the job in hand with adequate competition and complete delivery instructions is a 'natural,' so to speak. It practically makes itself. What then is the chief function of a purchasing department? Strange as it may seem to those who haven't given this a thought, the chief function of a purchasing department is selling.

What is it that the purchasing department sells? We sell specifications, new sources, time coverage, substitution. We sell broad company policy. Again, we sell the salesman. We practice the art of salesmanship on the fellow across our table—sell him a change in specifications, an early delivery or what not, even though we use methods not given in sales manuals. There is not, perhaps, a full consciousness on our own part, and certainly not on the part of the rest of our organizations, of the importance of, nor the amount of, sales work within the organization which a purchasing department must do. A speaker recently defined selling as follows:

"Analyzed to its fundamentals, selling is the process of teaching an individual or a group the facts about a cause, or a method, or a product, so that the person educated wants to work for the cause, adopt the method, or buy the product."

Does that not describe what the purchasing agent does every day?

THERE ARE SHELVES full of books on sales psychology, but none which have discussed the art of getting along with people from a



purchasing angle. This is new ground.

We recognize the errors which salesmen sometimes make in their human relationships. For example, when a salesman goes over one's head to a superior, he may get the order, but God help him on future negotiations! He has simply fallen down in a very obvious matter of human relations. By similar performances (although not as easily traced), the purchasing agent can lose the company thousands of dollars by his failure to recognize and follow the signs of successful human relations.

If we examine our function as buyers from a personal viewpoint, we find that everyone likes to buy—the housewife as she bargains at the fruit stand on her morning shopping tour, the engineer who discusses the performance of a piece of equipment with its manufacturer. Why? Because placing an order leaves the implication of granting a favor to the seller. Everyone likes to grant favors. It enhances the individual's sense of importance. It inflates the ego. This is a fundamental of human nature. Given conscious and active consideration,

it will not only smooth the path of our daily relations, but will aid us in bringing out the best efforts of those with whom we work.

There are some companies in which vendor contacts with other departments are carefully guarded by a purchasing department representative. This tends to deflate the other fellow's ego. It takes away, if you please, the fun he would otherwise have in sharing in the buying decisions. If, on the other hand, we allow some play to this trait, of which every human being is possessed, it can serve to produce better teamwork.

THE FOLLOWING ITEMS have been chosen to illustrate a few of the attitudes which make for good teamwork. Improperly or negatively expressed, they make for a touch-down or two for the other side and a consequent score against us.

It's Harder to Listen Than to Talk

One of the most important factors is to be certain that we have the other man's point of view. We must start by developing in ourselves and in our employees the art

Teamwork at the Convention city—65,000 people jam the Pitt Stadium for the 1936 football contest between Pitt and Notre Dame

of being good listeners. Our job, coordinating as it does many and frequently diverse activities, requires that we weigh a great many factors and that some be discarded. This fact is in itself an obstacle which we must overcome, for, at best, we cannot avoid having many persons in the organization conscious of the fact that their opinions have been rejected. It is important not to leave these individuals with an impression that we are not interested in their views. We can go a long way toward minimizing this handicap by developing a habit of evincing interest in, and listening to, the other fellow's story.

One thing we must carefully note, and that is, we must have a *real* interest. A false or simulated interest is always apparent and defeats its own ends.

In this way we can utilize all the other man has to offer. It is an art to get one's own ideas across and yet let the other man talk out his ideas. One of Coolidge's biographers

said of "silent Cal, Northampton's champion listener": "He listened his way into all the offices the town would give him." Oftentimes if we can let the other fellow develop our ideas, we may lose immediate credit, but we will do that thing which is the real purpose of any job—get results.

Confidence Begets Confidence

There is no better way to increase an individual's sense of importance than by confiding in him. In our relations with our associates, we can not only win cooperation, but we can bring about greater effort on their part by recognizing this fact. If we habitually ask for opinions or decisions without confiding in the other man, we can expect but one thing—perfunctory, and many times ill-advised, answers. But, on the other hand, if we carefully take our associate into our confidence, explaining fully all sides of the question, we have expressed our respect for his intelligence, his ability to weigh and decide for us—in short, his ego has been inflated. But what is equally important, his thinking has been stimulated, and he will put forth his best efforts.

There are times, of course, when the ultimate decision for the company's best interest differs from the opinion of an individual whose views are a factor. Here an expression of confidence in him is of utmost value in laying the groundwork for future cooperative effort. He should be shown the complete picture before any decision is made. If the discussion is carried on with a sympathetic understanding of his viewpoint, many times he will agree to that which is to the company's best interest, and the psychological let-down which would ordinarily follow a reversal of his decision (even though that decision may be unexpressed) will be avoided.

While it is a good rule to treat the other man with consideration and deference, we must remember that there are individuals in the world, and in every organization, who cannot be handled with gloves—those whose own blind

egotism drives them to combat every effort of others. Such situations can be attacked successfully only in a realistic way.

Give the Devil His Due

In our jobs it is important to acquire the habit of acknowledging credit. It is so easy to overlook. Should we fail in this, we perhaps would not have the benefit of the good advice given to the farmhands in a recent *Liberty* story: For twenty years they had partaken sullenly of the food prepared by the farmer's wife without one word of praise. Finally, one day she served cow fodder for dinner, and, on being accused of going crazy, she hotly replied, "I've never heard aught to make me think you'd know the difference!"

The simplest way in which to earn just credit for our own job is to learn not to overreach for immediate credit. Many times it is wise to forego such immediate credit in order that the other individual may receive that which is due him for his part. We are all familiar with many situations where a particularly profitable purchase originated or developed elsewhere than in the purchasing department, a change of specifications, development of a new source of supply, or what not. There is no better way to earn the future cooperation of the individual involved, even though he may have worked at your suggestion or under your direction, than to see that he obtains due credit.

Another trait which is of very great value to any individual who must work with many people is to be careful to avoid an "I" complex and to substitute a "We" habit instead. How many times a day are we all in a position where the "I'm-telling-you" approach only serves to drive the other man farther into his shell, unwilling to contribute what he may have or be capable of offering. Or if he is of the particularly belligerent type, such an attitude, like the red flag to the bull, will only serve to cause him to champion aggressively his side of the story, thereby depriving the

company, and both individuals as well, of the benefit of their coordinated efforts.

This should not alone guide the purchasing agent in his relations with other departments of his company; a good deal of it applies directly to his relations with his employees.

Department Morale Building

We all know when we give a subordinate the opportunity to develop a difficult negotiation with a free rein he will exert a greater effort and will produce better results. Then, too, the department should be imbued with an appreciation of the importance of its relations throughout the company in order that these viewpoints shall represent those of the department as a whole.

Frequent informal meetings of the executive head and key-men in the department provide an occasion to discuss these relations along with other major problems of the job. Such meetings can be used to bring about a thorough understanding on the part of each division of the part it plays in the department's function. This sort of careful training, coupled with equally careful guidance on the part of the executive, not only makes for more efficient functioning of the department within the company, but automatically reacts to provide effective teamwork within the department. Each individual becomes proud of his department and exerts greater effort to work with his fellow employees.

A purchasing department which does give active consideration to the human side of its activities will obtain the maximum of cooperation from the rest of the company, and it will receive credit for being efficiently operated. Of that we are certain. Too much credit, however, leads to a danger which is fatal—that is, the danger of acquiring a complacent attitude toward the job. Whenever, on examination, everything is found to be shipshape, it is a good rule to conclude that the time is ripe for a complete reexamination.

Continued on page 66



Director of the Receiving Dept.: "What! No Cellophane?"

The Why and the How of UNIFORMS for EMPLOYEES

INCREASINGLY FROM year to year, industry is uniforming its employees—not only those whose duties place them in contact with the public, but those as well who work behind the scenes in production departments, whether the product be steel or sausage, paint or pencil clips. Obviously, then, it isn't altogether for purposes of show, but certain practical utilitarian results are expected from such a policy. The purchasing agent who would keep abreast of the times will therefore do well to inform himself regarding the "Why" of employee uniforms, as well as the facilities that have been developed for supply and service on this item of growing industrial use.

In the case of employees who are more or less constantly and directly contacting the public, there are several excellent and self-evident reasons for uniform attire. It identifies the employee as a member of the organization. As such, it is not only a badge of authority and service, but it acquires what amounts to a trade-mark value in setting up the association between product and supplier in the customer's mind. It is a credential for the meter reader or service man who must gain admittance to the customer's home, and it protects the public in this regard. As a part of modern merchandising practice, which overlooks no detail in creating a proper impression, it is a means of increased attractiveness, of maintaining standards of appearance for delivery men, station attendants and the like, of subtly imparting to the public a message of quality, cleanliness, efficiency, and reliability.

Behind the scenes in the factory, some of these considerations have similar force, which may be summed up under the general head of building morale. Management, no less

than merchandising, is eager to avail itself of such a potent instrumentality, and the results in many cases have been notably successful.

Practical Advantages

In addition to this somewhat intangible factor, there are a number of very definite reasons why the uniform is decidedly advantageous. Take, for example, four rather common industrial hazards.

(1) Workers whose duties bring them close to whirling machinery, however conscientiously protected with safety guards and devices, are less likely to become the victims of accident when required to wear work clothes of suitable design. A substantial proportion of accidents of this nature are directly traceable to loose clothing caught in the moving parts, and safety records in many industries have shown a marked improvement when the random attire of individual selection has been replaced with uniforms properly designed and maintained.

(2) Industrial processes which involve working in an atmosphere laden with smoke or vapor frequently reduce visibility to a dangerous extent. Protective coloring may be a fine thing in the world of nature, but a gleaming white uniform is far more protective than dark overalls when a traveling crane is guided down a smoky aisle or passage in a busy factory. It will also increase efficiency when operators at opposite ends of a long machine are trying to coordinate their actions under such unavoidable conditions.

(3) Some forms of chemical poisoning associated with other industrial processes can be minimized or practically avoided by care and insistence in keeping the work clothing clean. That means first, that the clothing must be washable, and second, that it must be washed, at

sufficiently frequent intervals and with a suitably effective method to accomplish the purpose. One very logical way of seeing that this is done is through an employee uniform regulation.

In the foregoing examples, the safety angle has been the first consideration. But there's a dollars-and-cents angle too, in the cost of insurance and in *prima facie* evidence against the charge of negligence or lack of proper caution.

(4) A fourth consideration is that cleanliness is itself an industrial requirement, and not merely merchandising talk, in many fields. In the food industry, for example, bacterial action means spoilage and loss, and there's no way of controlling the bacteria that come to work on the operators' clothing, from homes and from crowded trolleys or subways. But those bacteria can be checked at the plant door by means of a regulation and a plan providing a sterile uniform at the start of each day.

Selling the Idea

The chief objection to the idea of uniformed employees is the charge of regimentation and class consciousness. The workers, it is argued, will resent this sort of regulation on the grounds that it will submerge their individuality and brand them as mere cogs in a soulless mechanical process. In the light of actual experience, however, in dozens of cases where the policy has been thoughtfully and intelligently presented and "sold" to the employees at the time it is introduced, that reasoning proves to be academic. In fact, it has generally been found that management-employee relationships can be improved, and morale heightened, if the subject is properly approached.

The uniform may be regarded as a symbol. Whether it becomes a



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The uniform may be regarded as a symbol. Whether it becomes a

stigma or a source of pride depends entirely on what it symbolizes. Basically, this is just the difference between the convict's stripes and the officer's brass buttons. In the vast majority of instances outside the strictly commercial field—at military school or in the profession of arms, the nurse's uniform, the academic robe, fraternal regalia, or the resplendent attire of the movie palace usher—where the uniform is the mark of authority, competence, achievement, or pride of organization, the emphasis is altogether on the favorable side and is universally accepted as such.

It is the aim of the personal relations department to accomplish a similar end with the employee uniform plan, to implant that pride of organization in every worker and to see to it that this feeling is merited. Without this latter consideration, of course, it is folly to expect any system or device to be truly effective, any more than to expect even a good salesman to get business on inferior merchandise. But if the uniform becomes a symbol of something desirable, the mark of being identified with a good company and sharing that prestige, the "regimentation" argument has little force.

When the system is embellished by some slight differentiation to indicate the recognition of personal competence on the job (analogous to the case of the nurse who graduates from the probationer's uniform and earns the right to wear the prized cap of her profession as the result and as the mark of her training) it acquires still greater organization values. This has been successfully worked out by a number of companies, in practical detail but without over-elaboration.

Quite aside from this, the safety aspects of proper attire have a strong personal appeal. Further, most employees really prefer neatness and cleanliness in working clothes and working conditions, rather than such makeshifts as the teamster's apron of burlap sacking or the wearing out of shabby and cast-off garments that are no longer suitable for street wear. Finally, there may be a factor of real econ-

omy to the worker, made possible under various plans of supplying uniforms through the company organization but not so readily available to the individual, and this is always a highly attractive point. This last phase is particularly the responsibility and opportunity of the purchasing officer.

Procuring the Uniform

The type of uniform to be selected is naturally dictated by the type of work and the conditions of use. There are several standard styles that adequately cover the usual requirements. As to material there is also a wide choice. It is worth noting in this connection that the cotton textile industry has made notable progress in developing fabrics that hold their shape and appearance in service to a degree comparable with woolen uniforms, and have the additional advantage of easy and economical laundering. Standard colors are white, brown, green, blue, and gray. Sometimes these are used in combination, with contrasting piping or trim, or with the addition of a company emblem. These extras, of course, add to the cost.

Recent studies indicate that 60% of uniforms are now supplied on a rental basis. Of these, about three-fourths are furnished to the barber shop and beauty parlor trade, and one-fourth to various other commercial and industrial users. There are well over three hundred laundry companies, located in some 145 cities in 38 states, now organized and equipped to furnish such service. Some of these companies operate over a radius of more than a hundred miles, so that coverage of the country's industrial centers is rather complete.

The complete rental service includes the capital investment in the uniforms, maintaining a suitable range of sizes always available, laundering at stated intervals, and delivery. Costs vary according to several variable factors: (1) the type of uniform furnished; (2) the size of the plant, for unit costs come down with quantity operation; (3) the term of the contract over which the uniforms must be depreciated;

(4) the frequency of laundering and delivery, etc. Generalizations are not greatly significant, but one representative estimate is set at about \$300 per week for uniforming and serving a thousand employees.

The 40% of cases in which uniforms are owned by the company, or by the employee, reveal a number of different operating plans. In some cases the company itself undertakes the complete service outlined above, and may or may not let out the laundering on contract. In other cases the company purchases the uniform and turns it over to the employee, but stipulates the method and frequency of laundering. A common system is for the employer to furnish the first uniform and to sell subsequent or additional uniforms to the employee at cost. Sometimes it is handled on a rental basis. The important things to be kept in mind are that the regulation must not be unduly burdensome upon the worker and that the company must retain control of the standards of appearance and cleanliness for which the system was instituted.

Sooner or later a good many purchasing agents will find on their desks the problem of uniforming the plant worker. Some of them will be called upon to confer with plant and management officials as to the practical implications of such a policy. Many more will have to decide on the most feasible plan, to buy the uniforms, or to contract for the service. A great deal of specific aid and information is to be had for the asking from the manufacturers of uniform fabrics, who have lately recognized a logical, useful, and growing market outlet in this development of industrial policy. They are not particularly concerned with the details of the contract, whether for rental or outright ownership, complete or partial service. But they are deeply interested in seeing that the uniform is suited to the purpose and the conditions of use, and in seeing that adequate service is available in the form which industrial users find best adapted to the needs. Substantial progress has been made in this direction.

SILHOUETTE STUDIES

14: Elwood Bachelor Hendricks

AMONG THE MINOR mysteries for the newcomer in Purchasing Agent Association work is the time set apart on each national convention program for a meeting of the Hendricks Club, and the pride which attaches to membership in that exclusive society. Who, or what, is Hendricks?

The answer, in brief, is this: E. B. Hendricks has never been a purchasing agent, but he is the man who first conceived the idea of a national association of purchasing men. He succeeded in making that idea a reality, personally doing a great share of the first difficult organization work and serving as secretary from its inception through the period of the first national convention. When that pioneering job was accomplished, when the association was a going and a growing enterprise, with leadership talent amply available from within its own ranks, he was content to stand aside and turn the responsibility over to purchasing agents themselves to carry on.

His retirement from the association came almost exactly twenty years ago this month. Seven years later, he was elected an honorary life member of N.A.P.A. and presented with a handsomely engrossed certificate citing his services to the purchasing clan and recognizing him as founder of the association. At the same time, his name was perpetuated in the formation of the Hendricks Club, whose membership is limited to those who have served the association as national officers.

Without that recognition, it is likely that "E. B." might be the forgotten man of purchasing, for he has preferred to remain strictly on the sidelines, and memory is short. Not that his interest has ever waned. Quite the contrary. His belief in the present and the

future of purchasing is as sincere and enthusiastic today as that of the most active and professional-minded buyer, and he has found a constant source of personal satisfaction in viewing the growth in numbers, accomplishment and prestige—far beyond that enjoyed by the original group he welded together from among scattered, diffident and discredited purchasing men a quarter century ago. But he is a salesman by vocation, and the same strong ethical conviction that led him in the formative days to fight for the exclusion of salesmen from membership in a purchasing association, because he believed they did not belong there, has caused him voluntarily to banish himself to the outside. He comes to the conventions—a stocky, vigorous man with a shock of iron gray hair—but it is chiefly to be present at the meeting of the Club, and to chat with the other pioneers, for old times' sake.

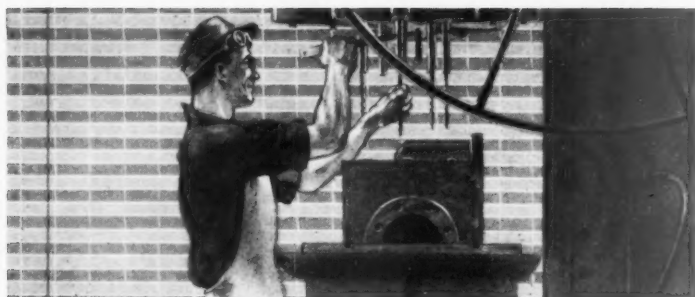
ELWOOD B. HENDRICKS was born in New York City, January 24th, 1881, the oldest of three children. His father, Samuel E. Hendricks, now 88 and retired from active business though still holding the office of vice president of Thomas Publishing Company, was probably the youngest soldier actually to carry arms for the Union cause in the Civil War, as a boy of fourteen years with the 51st Pennsylvania Volunteers. After the war, "S. E." became interested in publishing work, and showed a talent for successfully developing hitherto untried fields. One of his notable achievements was the publication of the first theater programs to carry advertising, an idea which has relegated the old long, narrow handbill to the status of a collector's item. About 1890, he compiled the first "Buyer's

Guide" of American manufacturing industry, which was published for many years as *Hendricks' Register*, another pioneering service of incalculable benefit to purchasing men, who had no previous source of such information. As a youngster at home, Elwood helped with the sorting and endless detail incident to getting out that first directory.

When he had completed the public school course, the boy took an active part in the business, which had then grown to substantial proportions, and presently, after an apprenticeship in various phases of the work, he was out on the road as a full-fledged salesman covering the eastern territory. Many of his business contacts were naturally among purchasing agents. He was impressed with the importance of the buying function, long before management itself had awakened to the possibilities latent in this department.

As his acquaintance broadened, he was astonished to find that the buyers themselves were practically strangers to one another, desk-bound, without any means for the interchange of information or ideas, and imbued with the traditional concept that purchasing problems were chiefly local—or even individual—in scope. It was a common experience to find really important purchasing agents unable to name the buyer in an adjoining plant.

From his outside viewpoint, Hendricks saw clearly that this attitude was the greatest single obstacle to purchasing progress. He shared his father's ability for visualizing new and unfamiliar ideas; his practical mind, then as now, was fertile with plans that could and should be put into action. Gradually there evolved the conviction that the way to develop better buying, better buyers, and recog-



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Send the attached coupon for interesting data; give us the measurements of your openings and we will gladly submit an estimate without any obligation.



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SHADES for INDUSTRIAL
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HOUGH SHADE CORPORATION
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1020 Jackson St., Janesville, Wis.
Send complete Ra-tox details at once.

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tion commensurate with the importance of the function, was through an association truly national in character, dedicated with singleness of purpose to industrial buying. Other business and professional groups had followed such a plan with considerable success, and it seemed to him that purchasing offered an even more conspicuous opportunity for useful collective effort.

HENDRICKS IS FRANK to admit that his motives were not altogether altruistic. He was sincere and sound in his thesis that such an organization would benefit business generally, the individual member companies, and the purchasing agents themselves. It was a practical business proposition. Incidentally he was improving his own business, which served purchasing officials, and it was quite conceivable that a strong association might create an opportunity for personal service and leadership

on the businesslike basis of value received. He was soon forced to revise his views on the latter point as the difficulties, delays, and financial implications of the organization work developed. But by that time he had become so deeply interested in the project for its own sake, and so enthusiastically determined to see it through, that he bent his energies and talents to its successful consummation long after any prospect of personal advantage had disappeared. He recognized that he was in a peculiarly strategic position to further the work, and he had a tremendous faith and pride in his idea. Though an outsider in one sense, it is all the more to his credit that he became truly one with the pioneers of association work and shouldered a major share of the burden.

A natural mixer, and bursting with energy, he set the work in motion by bringing small groups together in various cities so that purchasing agents might come to

know one another and appreciate the common nature of their interests and problems. Many a purchasing man who subsequently rose to influence and leadership in the buying profession first heard the gospel of associated effort from this purchasing-minded salesman. Many a business friendship which has ripened over the succeeding years, was born in these luncheon and dinner meetings, at Hendricks' expense. In three cities—Boston, Buffalo, and Denver—he learned of such local groups already organized, and to these he preached the advisability of a national organization.

As a result of this missionary work over many months, a considerable amount of interest was aroused, but the national idea, which was the heart and soul of Hendricks' plan, was slower in finding acceptance. The first incorporation as a national body, late in 1913, was principally a means of protecting the plan. His greatest success was in New York City, where one meeting attracted an attendance of 108 purchasing men, 84 of whom backed the national idea to the extent of two dollars apiece—the first N.A.P.A. budget. But more important, a dozen earnest and far-sighted purchasing agents, chiefly in the metropolitan area, caught Hendricks' enthusiasm and got whole-heartedly behind the plan. It became a group rather than an individual effort, and the faith, optimism and perseverance of those founders proved to be the factor that led to eventual success. The results in actual organization work were still decidedly spotty, but the idea had proved itself sufficiently sound to warrant a new incorporation in March, 1915, which is the present N.A.P.A.

THE STORY OF THE early months of the association has been told many times. Hendricks served as secretary of both the national and the New York group, and as field representative. All the while he was earning his livelihood in sales work with the Thomas Publishing Company, for the secretaryship,

far from being a remunerative office, represented a continual out-of-pocket expense. The national headquarters consisted of a desk in his own office.

There was tremendous internal strain, as conflicting policies were advanced and championed. The constitution and by-laws were rewritten half a dozen times. There were violent disagreements, disappointments, resignations, chiefly over the national issue. But Hendricks has never been one to dodge a fight. Now supported by able and determined lieutenants who shared his vision, he insisted that the organization should be national in fact as well as in name, and that viewpoint finally prevailed. No need to rehearse the debate again, for it is past history now and the point is established beyond any reasonable dissent. It is probable that this controversy is the very crucible in which the association was fused into a unified and single-minded group, for it was characteristic of those hardy pioneers that they shook hands after the most violent argument and went forward together. Some of the most outspoken critics became the outstanding leaders in subsequent association development. That spirit bears testimony to the excellence of his sales technique in putting across the association idea.

THE NATIONAL CHARACTER of the organization was established by the election of a board of thirty directors in 1915, representing a wide geographical range—New England, New York, New Jersey, Pennsylvania, Ohio, Wisconsin, South Carolina, and California. In tireless travels, Hendricks had formed purchasing agents' groups as far west as Columbus and encouraged them in the matter of national affiliation. By correspondence and the cooperation of interested local men, similar organizations were started in Chicago and Los Angeles. In May, 1916, purchasing agents in meeting at New York, Pittsburgh, Chicago, Denver, and Los Angeles exchanged greetings over the newly completed transconti-

ental telephone system—a privilege and demonstration in which only the American Bankers Association had preceded buyers.

The first national convention was held in New York in October of that year, with 100 members in attendance. Interest and momentum increased. The first national project, standardization, was launched. By the following spring there were active affiliated local associations at New York, Pittsburgh, Detroit, Columbus, South Bend, and Los Angeles, and twenty-eight members at large, a total of 437. Baltimore, Cleveland, Chicago, Philadelphia, St. Louis, Rochester, and Syracuse were at the point of joining the national organization. The foundation was secure.

With this assurance, personal affairs assumed greater importance. For five years the association had been Hendricks' hobby, a costly hobby not only in direct expenditures but because he had given lavishly of his time that could hardly be spared from his own business. He still had large plans for the association, many of which have since been realized, but he believed that his own part in the development work was logically finished. Accordingly, he handed his resignation to the board of directors and turned the secretarial job—still an unsalaried office—over to L. F. Boffey, whose recently established magazine, *The Purchasing Agent*, had already made its influence felt as the voice of the buyer.

Hendricks is still selling, calling on purchasing agents. After all these years, habit is strong. Occasionally he meets a buyer whose self-sufficiency has kept him out of cooperative fellowship with his colleagues in purchasing, and under these circumstances, "E. B." promptly undertakes to sell him on the dignity of his calling and the value of associated effort. No one will ever know how many members have been won, or saved, for N.A.P.A. through such interviews. Incidentally, he has assisted other industrial groups in a

similar way, notably the Marine Paint Manufacturers. But his greatest pride is in the work he did in bringing purchasing men together.

HENDRICKS IS ALMOST universally known among his business acquaintances by the initials, "E. B."—a natural and convenient means of identity in a family business where his father and brother have also been active for many years. His middle name commemorates his father's membership in a club of young men who pledged themselves to steer clear of matrimonial entanglements or else, if they succumbed, to christen their first-born, "Bachelor."

"E. B." had no inclination to follow the implications of that name. On March 4, 1909, he married Miss Gratia R. Hoffman of Jersey City, a secretary in the publishing house. Their home is at Haworth, N. J. The married daughter, Hazel, has four small children. A son and daughter, Samuel and Gratia Ellen, are now associated with the Thomas Publishing Company, and Ellen exhibits the family skill in organization work as president of the Young Women's Club and secretary of the Young People's Republican Organization of Bergen County. Willis is a student of engineering at Rutgers University, and the younger boys, John and Thomas, are attending high school and grammar school respectively.

Aside from his business, Hendricks retains a lively interest in the combative sports in which he excelled as a young man, and is known as something of an authority on boxing and wrestling. He has missed few of the important bouts for many years past. Perhaps it was this observation of champions in action that taught him to keep moving forward in spite of discouragement and opposition. Whatever the reason, purchasing men have cause to be thankful for the courage and persistence that have helped them to their present status in industry.

—S. F. H.

Using the Standardized Invoice Form

FOR SOME TIME we have wondered to what extent our customers were making use of the specially printed portion set aside for okaying receipts, indicating account distribution, etc. on the "standardized" invoice form. The attached letter was, therefore, sent out to 750 of the larger buyers on our list from whom we received 490 replies. The summary of answers shows:

- 70 use section as printed
- 420 do not use this section
- 183 said that their own companies print this section on their outgoing invoices
- 278 said that their own companies do not print this section on outgoing invoices

Using these figures for a basis it would appear that the best procedure would be to leave the space blank for the customer to use as he sees fit. Further examination of replies and comments makes the answer more difficult.

First one gains the impression that the chief barrier to universal

use is the fact that so few sellers are now providing the section with the result that buyers continue to follow a system of their own for the sake of uniformity. Fifteen companies stated that they would make use of the form if it appeared on *all* invoices.

Others, not using it, indicated that they considered it a movement in the right direction and thought it would be a backward step for anyone to abandon it.

Going over the replies one is impressed with the difficulties involved and the need for patience and persistence in standardization work of this nature. The purchasing agent for example, sponsors the idea as a step toward efficiency in his work. His accounting department thinks differently; it has an established procedure which it is loath to change. He suggests that his company's sales department do what he is asking their suppliers to do but a number express regret that they are not examples of consistency in this respect.

In the case of companies with plants in different localities, replies indicated a lack of uniformity in procedure; some made use of the section, others did not.

Even in the matter of leaving a blank space free for rubber stamps, there's difficulty of standardization. Many said: "Of no use, the space is too small for our stamps," or, "It's not the right shape," "We prefer to use the back of the sheet"—all of which tends to leave the supplier with a feeling of hopelessness.

Continued on page 66

C. V. PUTNAM

Secretary
Reliance Electric & Engineering Co.
Cleveland

Form 202E

RELIANCE ELECTRIC & ENGINEERING CO.
1663-1666 Ivanhoe Road Cleveland, Ohio

CUSTOMER'S ORDER No. and DATE REQUISITION

INVOICE No. DATE

SOLD TO

FOR CUSTOMER'S USE ONLY

REGISTER NO. INVOICE NO.

F. O. B. CHECKED

TERMS APPROVED

PRICE APPROVED

CALCULATIONS CHECKED

REMARKS


SIGNATURE

DATE

RECEIVED

UNIT PRICES

TOTAL



The Reliance Electric & Engineering Company
MANUFACTURERS OF ELECTRIC MOTORS D.C. AND A.C.
MAIN OFFICE AND WORKS
1663-1666 IVANHOE ROAD
CLEVELAND, OHIO, U.S.A.

PLEASE REFER TO OUTLINE

SUBJECT: Standardized Invoice Forms

Western Cartridge Co.,
East Alton, Ill.

Gentlemen:

Attention of Purchasing Department

Several years ago we made changes in our invoice forms to meet certain standards adopted by The National Association of Purchasing Agents and advocated by the U. S. Department of Commerce and large buyers.

In noting invoices returned to us we have gained the impression that one feature that was advocated is not being used, namely, that portion on the sample attached headed "For Customer's Use Only". If purchasers do not care for this feature but prefer to use their own rubber stamps, it has occurred to us that it might be best to leave this portion blank for the stamp impression.

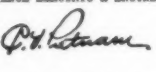
It will help us to please the majority if you will indicate in the following spaces your wishes or opinions and return this sheet to us in the attached prepaid envelope.

Yours truly,

CVP:HB

117

RELIANCE ELECTRIC & ENGINEERING CO.



Do you make use of the spaces in the section headed "For Customer's Use Only"? ☒ Yes ☐ No. We prefer that this be left blank.

Does your Company use this form on their own invoices? ☒ Yes ☐ No

How the Bureau of Standards Serves Governmental Buyers

ROBERT A. MARTINO

**Division of Codes and Specifications
National Bureau of Standards**

THE SERVICES AND facilities of the National Bureau of Standards are being utilized more and more extensively by the Federal Government and by State and local governments as well. Through adequate tests made, the Federal Government determines whether the vast quantities of supplies which it purchases actually conform in quality to the requirements of its specifications. The Federal specifications under which these purchases are made are frequently revised and strengthened in the light of the Bureau's investigations, leading to better goods at no increase in cost.

The Bureau's services are proving of definite benefit not only to the Federal, but also to State and local tax-supported agencies, which to an ever-increasing extent are basing their purchases on specifications having national recognition.

From time to time the State and other public purchasing agencies have sought the assistance of the National Bureau of Standards in the formulation of standards, specifications, and methods of test for their purchases. In order to extend its cooperation to these tax-supported agencies, the Bureau launched a program touching upon several important phases of the purchasing field involving selection and use of Federal specifications; directories of standards and specifications, and college testing and research laboratories; lists of sources of supply of commodities manufactured in accordance with certain selected Federal specifications and commercial standards; and the establishment of commercial standards and simplified practice recommendations.

Directories of Standards and Specifications

A distinct service to Government purchasing agencies for determining whether an applicable standard specification exists for any commodity desired is rendered through several publications prepared and issued by the National Bureau of Standards which cover the subject of standards and specifications generally. In 1932, the Bureau compiled and issued a revised edition of the National Directory of Commodity Specifications¹ wherein are conveniently classified and indexed more than 6,000 standards and specifications, including the testing methods, prepared by the national technical societies and trade associations, as well as the standards and purchase specifications of the Federal Government as a whole. This Directory

does not reproduce the actual specifications, but lists them according to titles, designation numbers, and sponsoring organizations, with an outline of the scope and directions for obtaining actual copies of the documents themselves. These special features will aid any Government purchasing officer in selecting specifications suited to his particular needs.

There have also been prepared and issued by the Bureau two publications entitled "Standards and Specifications for Non-Metallic Minerals and their Products"² and "Standards and Specifications for Metals and Metal Products."³ These publications represent an attempt to present the substance of every nationally-recognized standard and specification for the groups of commodities considered.

Governmental authorities utilizing these publications will find them of much value in connection with their purchasing problems.

Certification Plan

Surveys have been made from time to time of the purchasing and commodity acceptance testing methods employed by Governmental agencies for the purpose of determining the manner in which the Bureau could be of assistance to these agencies in solving their purchasing problems. An analysis of these surveys revealed the fact that many excellent specifications well recognized throughout industry, including those prepared by the Federal Government, were not being widely used because of the inability on the part of the Governmental purchasing officers to determine whether or not commodities delivered correspond to specification requirements.

In order to facilitate the use of specifications, the Bureau inaugurated the so-called "certification plan."⁴ In carrying out this plan there are compiled by the Bureau lists of manufacturers who have indicated their willingness to supply material in accordance with certain selected Federal specifications and commercial stan-

¹ Obtainable from Superintendent of Documents, Government Printing Office, Washington, D. C., at \$2.75 per copy.

² Obtainable from Superintendent of Documents, Government Printing Office, Washington, D. C., at \$3.00 per copy.

⁴ Letter Circular No. 256a—Obtainable from the National Bureau of Standards, Washington, D. C., without charge.

¹ National Directory of Commodity Specifications, Bureau of Standards Miscellaneous Publication No. 130, price \$1.75 per copy. Obtainable from the Superintendent of Documents, Government Printing Office, Washington, D. C.

dards, and to certify to purchasers, when requested to do so, that materials supplied by them are guaranteed to comply with the requirements and tests of the specifications and standards. This plan has already been applied to 570 Federal specifications and commercial standards, more than 21,000 requests for listing having been received from about 12,000 firms. Copies of these lists, as they are compiled, are sent to all Governmental purchasing agencies. This service to Governmental purchasing agencies, which is rendered free of charge, tends to promote economy, in that real competitive bidding can be invited, and satisfactory material can be insisted upon. It is being widely utilized by purchasing agencies who are spending the money collected from the public in the form of taxes.

Directory of Laboratories

As an aid to public purchasing agencies who are not individually equipped to make their own acceptance tests of commodities purchased on contracts based on specifications, the Bureau has compiled a directory of commercial testing and college research laboratories.⁵ This directory contains a list of laboratories throughout the country, arranged geographically, with indications of the types of commodities which they are prepared to test. The existence of this directory and the knowledge that tax-supported purchasing agencies can at any time call upon testing laboratories to check deliveries made to them on contracts based on specifications have induced many public purchasers to take full advantage of the specification method of purchasing.

Commercial Standards⁶

The National Bureau of Standards aids commercial groups in the voluntary establishment of grade, quality, and other standards as a national basis for marketing manufactured commodities. The purpose of establishing commercial standards is to facilitate, for the small as well as the large purchaser, the specification method of buying and to make that effective as far as practicable without constant resort to tests. Up to October 1, 1936, the Bureau had established 60 commercial standards⁷ covering a wide variety of commodities. The certification plan mentioned elsewhere has already been applied to 45 of these standards, and lists of willing-to-certify manufacturers covering commercial standards are distributed from time to time to many State and municipal purchasing agencies. Commercial standards are of real benefit to tax-supported agencies in that they afford a ready means for checking or inspecting the grade or quality of the material so delivered on contracts based on commercial standards.

⁵ Bureau of Standards Miscellaneous Publication No. 125, obtainable from the Superintendent of Documents, Government Printing Office, Washington, D. C. Price 15c per copy.

⁶ The Commercial Standards Service and Its Value to Business CS 0-30. Obtainable from the National Bureau of Standards, Washington, D. C. Free.

⁷ List of Commercial Standards, Letter Circular 354. Obtainable from the National Bureau of Standards, Washington, D. C. Free.

Simplified Practice

The Bureau serves as a clearing house or centralizing agency through which manufacturer, distributor, and consumer groups cooperate in furthering a nationwide program for the elimination of excessive and needless variety of sizes, types, and dimensions of manufactured products, the existence of which makes the process of manufacturing and distribution less profitable than might be.

Simplified practice⁸ offers itself as one means of reducing the costs of production and distribution. In addition to industry itself, direct cooperators in and beneficiaries of this activity are Federal, State, and municipal establishments. The simplified practice recommendations are of direct interest to States and other tax-supported agencies for they aid in conserving public funds in the work of procurement. Specifically, the interest shown by States is illustrated in three simplified practice recommendations covering vitrified paving brick, asphalt, and lumber. The lists of acceptors of these recommendations contain many States. Representatives of several State governments appear on standing committees of various recommendations. Up to October 1, 1936, the Bureau had established 165 recommendations.⁹

Federal Specifications

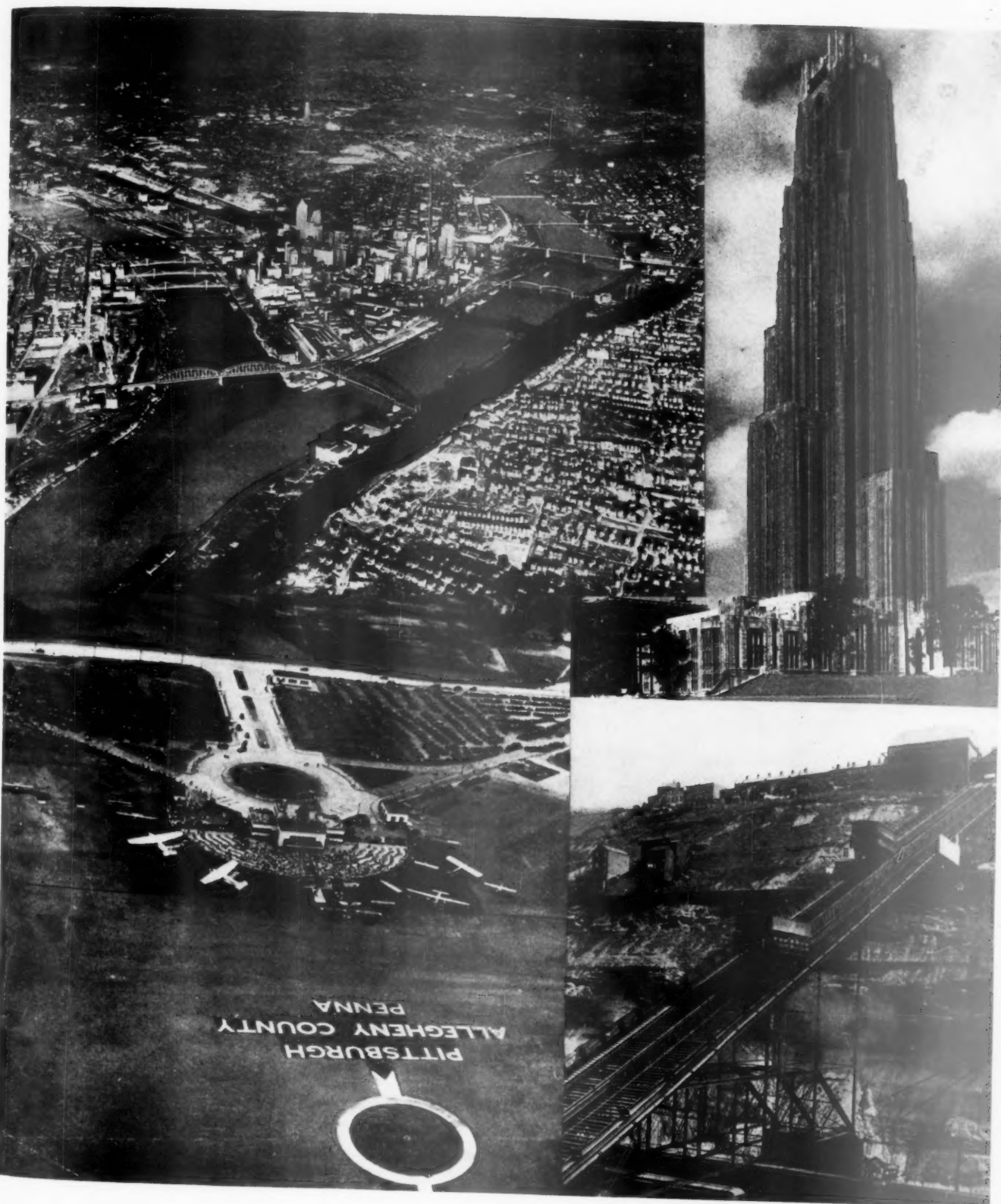
The Federal Government, acting through the Federal Specifications Executive Committee, Procurement Division, Treasury Department, establishes specifications for purchases made by the various Government departments and establishments. This Committee serves to bring about coordination and economy in the procurement of materials used by the Government under specifications prepared by the various branches thereof, to avoid duplication of effort, and for the better utilization of industries.

The procedure adopted for the consideration of the specifications is as follows: The need of specifications for a given article or material, for either technical or business reasons, is fully considered by the Executive Committee, and the subject is then referred to a technical committee composed of members of various branches of the Government, who are most vitally interested in the particular subject, for consideration of all existing government and/or commercial specifications. After a specification has been selected or formulated which will be suitable for the uses intended, by all departments and establishments of the government, it is then submitted for comment and criticism to all using agencies of the Federal Government and interested trade associations. All criticisms received are referred to the respective technical committees for consideration on their merits. When the specification

Continued on page 76

⁸ Simplified Practice—Its Purpose and Application, Letter Circular 456, obtainable from the National Bureau of Standards, Washington, D. C. Free.

⁹ List of Simplified Practice Recommendations, Letter Circular 345, obtainable from the National Bureau of Standards, Washington, D. C. Free.



At the Convention City

Upper left: the historic triangle at the confluence of the Allegheny and Monongahela Rivers, which join here to form the Ohio.

Upper right: the Cathedral of Learning, Pittsburgh's architecturally unique skyscraper University.

Lower left: the busy modern airport which serves the steel metropolis.

Lower right: one of the several inclined railways which carry passengers and vehicles between the river level and the bluffs above.

MAY 1937

PAGE 23

THE MARKET PLACE



*A quick review of the market
noting major developments in
supply, demand and prices of
selected basic commodities*

Supply

Demand

Market

BURLAP

LABOR CONDITIONS IN INDIA mills became acute in April. At the close of the month approximately 70% of production equipment was idle, and dock workers were said to be considering a sympathetic strike. Twenty-nine burlap boats were then enroute to America.

TRADING WAS NOT HEAVY, but both sales and consumption were expanding. March consumption was well above production levels, and this margin was of course widened in April.

PRICES ROSE STEADILY throughout the month as it became increasingly evident that dependence must be on spot supplies, with the alternative of using cotton. Quotations on 10¹/₂ oz., 40 inch, advanced week to week from 5.40 to 6.15.

COAL

BITUMINOUS OUTPUT FELL off sharply from 1st quarter production rate as the industry generally went on a three day week basis, with tonnage at about 6,275,000 tons weekly instead of March's 11,200,000 tons. Consumers' stock piles, which grew slightly in anticipation of the wage conferences, were again reduced to more normal proportions. Anthracite output was in good volume, also coke.



APRIL TRADE WAS BETTER than had been forecast, but there was no real expansion. A buying movement of fair proportions may develop in May, pending the fixing of definite price levels under the Guffy-Vinson Act. Industrial consumption continued at a good rate.

PRICES WERE NOMINALLY unchanged, but were generally softer except on stoker coal in the western territory. Less production on large sizes placed screenings at a moderate premium. The Guffy-Vinson Act, signed in the last week of April, provides for price control, and, with new labor schedules, may account for an advance of 40 to 50 cents per ton.

COPPER

WORLD STOCKS WERE DOWN to 308,430 tons at the beginning of April; U. S. stocks down to 121,000 tons, or less than two months supply. Mine output was expanded to the extent of 19,000 tons and refined production was up 12,000 tons. Spot supplies were so scarce that some producing companies appeared in the role of buyers. Consumers' stocks for actual use, however, are apparently ample for two to three months ahead.

DOMESTIC CONSUMPTION WENT to a new high of 94,830 tons for the month. Sales were exceedingly sluggish in the first three weeks, but picked up slightly at the lower price levels, to about 27,000 tons for the month.

FOR THE FIRST TIME in several months, foreign prices were below the domestic quotation, and the latter was promptly reduced from the high level which producers had reluctantly adopted in March. A cut of 1 cent on the 6th followed by three successive reductions, bringing the price to 14 cents on the last day of April. Copper scrap and brass products experienced a similar downward trend.

COTTON

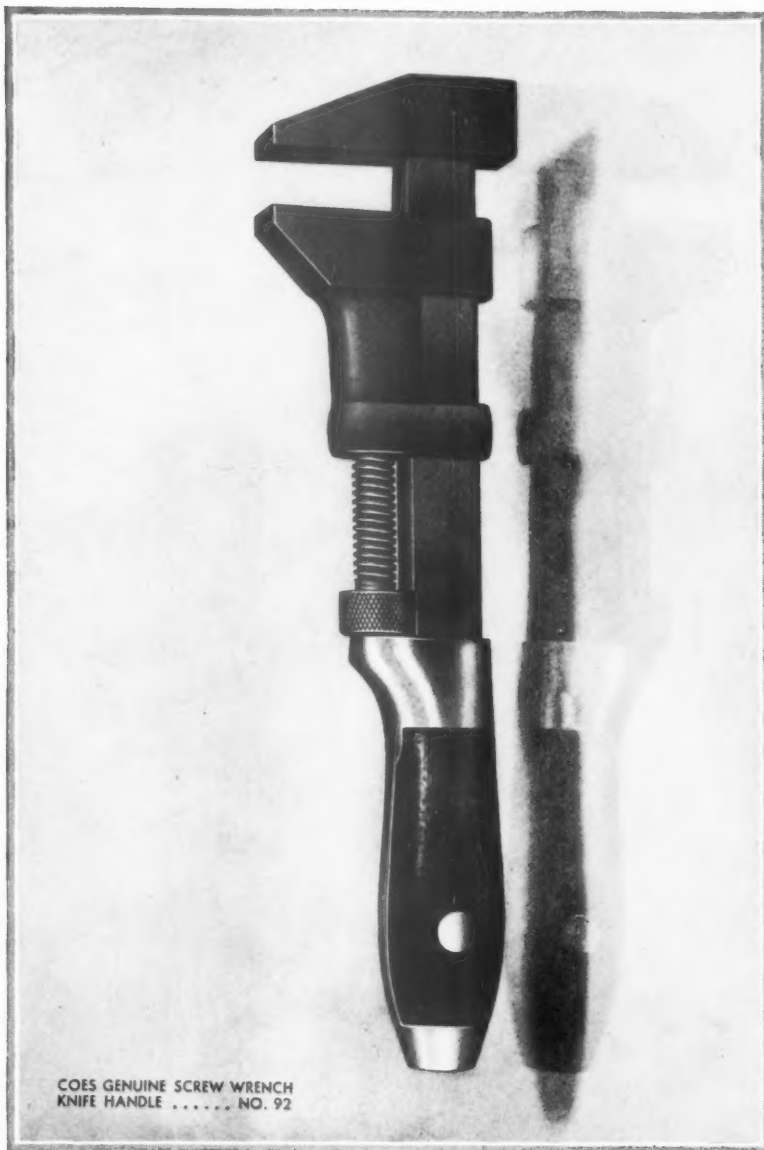
REVISED ESTIMATES OF acreage indicate an increase of 10.6% over the last crop year, stimulated by the better price situation and encouraged by cotton shippers, who require more of the better grades. The government program of loan cotton disposal was continued through April and until further notice. At the beginning of the month the government pool was entirely liquidated and loan stocks were down to 1,850,000 bales. Altogether, the surplus is no longer of abnormal proportions.



DOMESTIC MILL CONSUMPTION in March amounted to 779,302 bales, an all-time record. The backlog of orders for print cloths—540 million yards—represents about sixteen weeks production. New orders were light in the first half month, but a new covering movement developed in the later weeks. Trading in staple was in moderate volume.

TEXTILE PRICES TAPERED off slightly during April. Spot cotton fluctuated widely. From 14.55, quotations rose to 15.08 in the first week, but from that point on the recession was steady, reaching 13.26 at the close of the month. The movement was orderly, and was chiefly attributed to uneasiness regarding the government's gold policy. Others viewed it as a major technical correction of the market position, which would require new buying incentives to check.

QUALITY WRENCHES



COES GENUINE SCREW WRENCH
KNIFE HANDLE NO. 92



COES STEEL
HANDLE WRENCH
NO. 91



IMPROVED ADJUST-
ABLE "5" NUT
WRENCH NO. 48



COMBINATION PIPE
and NUT WRENCH
NO. 45 BRIGHT



STEEL HANDLE
NUT WRENCH
NO. 70



MONKEY WRENCH
WOOD HANDLE
NO. 82

BEMIS & CALL CO.

MANUFACTURERS OF WRENCHES SINCE 1835
MANY DIFFERENT STYLES IN ALL SIZES

Springfield, Mass.

S O L D B Y L E A D I N G D I S T R I B U T O R S

IRON and STEEL

STEEL OPERATIONS CONTINUED to expand. The pace of the industry as a whole went up to 92.3% after a slight recession in the opening week. Production equipment is reported as holding up well under this extraordinary load. The output of 1,209,000 tons of steel ingots in the third week set a new high record, and 1st quarter production, up 54% from 1936, exceeded the 1929 mark by a substantial margin. Pittsburgh continued as the center of greatest activity, reaching 95% at mid-month, though this was subsequently curtailed by flood conditions. Shipments still lag considerably behind demand.

LUMBER

OUTPUT OF SOFTWOODS increased sharply in April. Reaching 68% of the 1929 weekly average in the opening week, the pace rose to 71% in the second half of the month, while shipments rose to a rate of 79%. Production was below both shipments and new orders. Activity in hardwoods was somewhat less.

NAVAL STORES

THE EFFORTS AT CROP restriction in naval stores have apparently been utterly ineffectual. After repeated postponements of any official announcement on this matter, reports are current that not more than 2 to 3% of producers are willing to join in the program. The recent sensational advance in rosin prices was apparently too attractive to producers. In turpentine the situation is slightly different, but it is very doubtful if any effective restriction program can be put into operation.

PAPER

PRODUCTION CONTINUES AT high rates. Canadian newsprint mills are running at practical capacity, with output about 22% ahead of last year. The general index of paper production has attained a rate of 90.2, as compared with an average of 81.3 for 1936, and paper board production is at 88, compared with 71.5 in 1936. In general the policy has been to maintain practical balance with business in sight. Spot supplies are scarce in most grades, and a newsprint scarcity is mentioned as a possibility.

DEMAND APPEARS TO BE quieting somewhat, though still in good volume and well diversified. Tin plate operations are close to capacity. Spring automobile sales are exceptionally good. Export demand is heavy. The backlog of orders is good for about two months, and from present indications the peak of activity will not subside appreciably until late summer. With the reaffirmation of prices for the 3rd quarter, shipping instructions are less urgent and a steadier tone is apparent.



NEW ORDERS WERE AT the highest level of 1937, and unfilled orders are nearly 500 million feet ahead of 1936. Residential construction is reported as running 65% ahead of last year in 37 states east of the Rocky Mountains.

BUYING WAS ALTOGETHER of a routine nature. The hand-to-mouth policy suits most buyers, who are not yet convinced that the recession in rosin prices has run its course, and who are further counting on increasingly ample supplies as the new crop begins to come in.



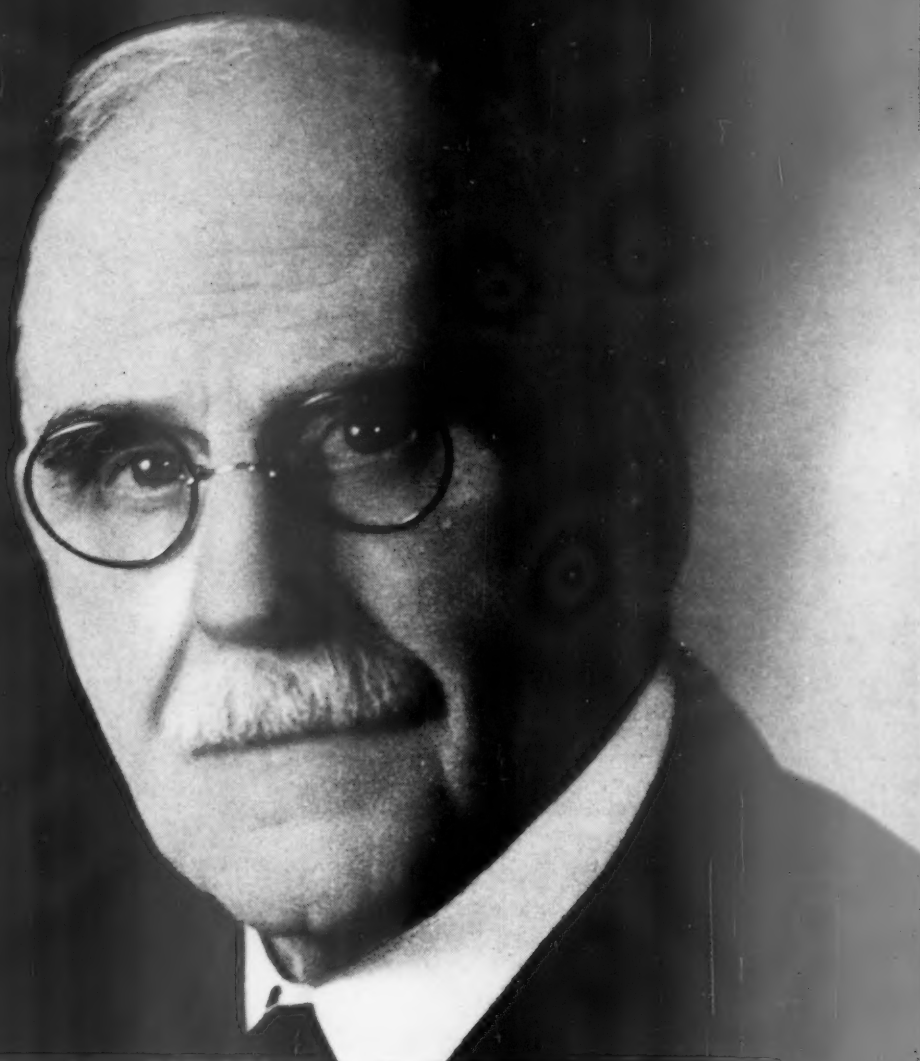
DEMAND IS HOLDING UP well in most grades. Newsprint consumption is steadily expanding and the call for tissues is taxing production capacity. There has been some resistance to higher prices in the fine bonds and ledgers, and wrappings are in spotty demand. Boxboard is moving in good volume.

EARLY IN THE MONTH it was felt that 3rd quarter prices would not be announced until the close of May, with a possible rise in prospect. But contrary to expectation, leading producers reaffirmed present quotations about April 20, indicating no revision. Sheet prices have been held firm even for 4th quarter delivery and a few orders have been booked that far in advance at present price levels. The exception to this situation is tin plate, which advanced 50 cents to 5.35 per cwt. Scrap prices generally declined.

THE ADVANCE IN SOUTHERN pine continued, with a price of \$29.23 in the first half of the month. Though this sagged to \$29.04 at mid-month, the net record for the month was a good advance. Hardwood prices also went up moderately and were firmly held at the new levels.

ROSIN WAS MORE STABLE in April than in March, particularly in the medium grades, but the list generally sagged a little. Turpentine, however, exhibited continued weakness and went to a new low of 40½ cents. Producers, despairing of effective production control, have turned to other means in the formation of a marketing organization at Waycross, Ga., to be known as the Turpentine Farmers Trading Co., for the purpose of buying for storage when prices are unreasonably low and holding for a more favorable market.

PRICES ARE MOVING upward all along the line. The sharpest advances in April were noted in pulp, both mechanical and chemical, which rose from 5 to 20%. Looking somewhat farther ahead, the contract price on newsprint for the 1st half of 1938 has been announced as \$50, an increase of \$7.50 per ton, and a considerable number of contracts have already been written on that basis. Prices on waste papers were advanced substantially during the month.



"What! Uniforms for MY employees?"

Well—why not? There's more to a uniform than a few yards of cloth. The psychological value of uniforms is a new field that's alive with possibilities for the man who can discover them.

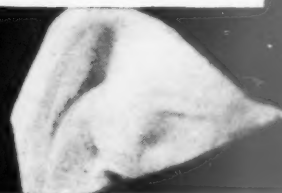
Your business, like all others, is "different"—but human nature doesn't change. Have you ever figured out why Boy Scouts, Nurses, Soldiers, Ball Players, etc. like to wear uniforms? Sometimes the reason for uniforms is obvious—pride in the job and a sense of greater efficiency and service. Other reasons, equally important, may not be quite so apparent. For example,

one man found that employee uniforms reduced customer complaints—another that uniforms reduced accidents—another that labor turnover was reduced.

Today, employees are wearing uniforms for a hundred different reasons in hundreds of different businesses. Are you missing a good bet?

Your local linen supply man can show you uniforms in great variety of materials and colors. He supplies them on a rental basis. Wellington Sears Company supplies Wellington Fabrics for use in the manufacture of these uniforms.

WELLINGTON SEARS COMPANY 65 WORTH STREET
NEW YORK, N. Y.



PETROLEUM

CRUDE OIL OUTPUT went to new record highs in April, chiefly due to greater production in Kansas and Oklahoma, the peak rate now standing at 3,484,175 barrels daily. Crude oil stocks are now in the neighborhood of 297½ million barrels. Texas allowable production has been raised to 1,411,236 barrels daily for May, substantially above the Bureau of Mines recommendation. Gasoline stocks went up to 83½ million barrels—about 17 days supply above the estimated minimum working requirement of 60 million (based on an 8% increase in consumption) but not a real threat to the market.

THE MOVEMENT OF gasoline into volume consumption has started earlier than usual this year, while demand for fuel oil has been maintained above expectations. Diesel oils and Bunker C have been in particularly good demand, the latter being in somewhat limited supply at the moment.

THE GENERAL PRICE structure is steadily firming. No change reported in crude prices. Gasoline, however, advance 1/8 to 1/4 cent, at first in Ohio and then on a broader scale. Bunker C was advanced 30 cents to \$1.50 per barrel at mid-month, and ten days later a similar advance was recorded on Diesel and fuel oils.

**RUBBER**

PRODUCTION IS INCREASING somewhat, but the chief emphasis has been to expedite shipments from producing areas, with considerable success. Producers are now operating at close to quota rates, which means approximate balance with use. No change in quotas was made during April. The meeting of the International Committee, scheduled for April 27th, was postponed a month. Dealers' stocks are slightly lower.

DOMESTIC CONSUMPTION OF rubber amounted to 52,938 tons in March, a new record, carrying the year to 18.9% ahead of 1936. Imports were high—52,039 tons, and 56,994 tons afloat. Trading was fairly active in the lower price ranges, but factories were on the side lines for the most part.

RUBBER PRICES WORKED downward during April, the general trend being emphasized by two major price breaks. Opening around 26½ cents, the spot price was down to 22⅝ at the middle of the month, and after a brief rally dropped to 21 cents in the closing days.

TIN

WORLD PRODUCTION OF tin in the first quarter amounted to 43,800 tons, about 12% ahead of 1936, and generally in line with demand. April deliveries to the U. S. were 6,995 tons, and supplies in sight at the end of the month were 4,741 tons.

U. S. CONSUMPTION IS running about 16% ahead of a year ago, with the tin plate industry at capacity and large volume also going to the automobile field. Buying was spotty.

TIN PRICES SHOWED THE customary wide fluctuation in April, but the pattern was almost exactly reversed from that of March, when quotations climbed from 54¾ to 67 cents. April showed a steady decline, to 57⅞, with no particular evidences of strength at the latter figure.

ZINC

ORE PRODUCTION WAS well maintained, despite some labor difficulties. Slab production was not quite so active. World stocks are estimated at less than 200,000 tons, and the supply situation is still fairly acute, though shipments have been in excess of sales for several weeks now and the situation is noticeably easier. Unfilled orders, which have been consistently high for some time past, are now just under 85,000 tons, and consumers' stocks are rather low.

BUYING CONTINUES TO relax, but pressure for shipments is being maintained, most of the metal going directly into use.



LAST MONTH'S PRICE advance was short-lived, being predicated largely on London quotations and the general strength in metals. The price dropped ½ cent to 7 in the second week, and dropped again on the 20th. Nominally held at 6¾, it is generally accepted that 6½ cents is a more accurate quotation, this being a net decline from the 6.80 position of two months ago.

YOU DON'T HAVE TO

Go to the Well!



LOCATING, storing and getting water into your home and plant doesn't worry you these days. That's a problem you leave to the local water company, which maintains all the necessary facilities as a "cooperative service" for you and many other water users. Through this service you get water simply by opening a valve... and at minimum cost.

In a similar way a recognized industrial distributor, identified with the National Industrial Distributors' Foundation, provides a "cooperative service" in your locality that enables you to avoid work and expense in getting the bulk of your industrial supplies and equipment. He maintains complete and specialized facilities which relieve you of time-consuming, costly tasks in meeting plant requirements.

By sharing the valuable facilities of this "cooperative service" with other plants in your neighborhood, you can obtain *what you want, when you want it*, and at a cost that reflects the economies of sharing expenses. It will pay you well to call in the man who wears the N.I.D.F. emblem and plan ways to make full use of his money-saving facilities.

Welcome the Man
...who wears THIS PIN



He represents one of the leading industrial distributors whose ability to render complete "cooperative service" has been verified. He offers these combined facilities for saving you work, worry, money:

1. Expert buying service that "narrows-down" your work of selecting supplies.
2. Superior warehousing facilities that enable you to limit plant stocks, and reduce stock-carrying charges.
3. To-your-door delivery that cuts down shipping and trucking expense.
4. One-source supply which enables you to obtain many items with a single order.
5. An information service that gives you latest unbiased product-and-price data without bother or delay.

NATIONAL INDUSTRIAL DISTRIBUTORS' FOUNDATION

☆ of the Industrial Supply Research Bureau, 7th and Bainbridge Sts., Richmond, Va.; an activity of the National Supply & Machinery Distributors Assn.; Southern Supply & Machinery Distributors Assn.; and American Supply & Machinery Manufacturers Assn. ☆



5: Freight Car and Truck Loadings

HAROLD A. KNIGHT

AS STATED IN A previous article, most business barometers deal with production and comparatively few treat distribution. One of the earlier articles in this series dealt with retail sales, a new and rather embryo barometer so far, but one which is badly needed to supplement longer-established barometers. The principal barometer on distribution in the past has been freight car loadings.

This barometer was sound in its original basis, but has been becoming rather out of date as a complete barometer because of the increase in transportation by truck. However, since January 1, 1937, the American Trucking Association, Inc., Investment Building, Washington, D. C., has been essaying figures on truck loadings, which as time goes on should well supplement the older index of freight car loadings.

Thus the report for February is based on returns from 147 motor carriers, operating in all States and District of Columbia. Classifications so far are general merchandise, household goods, automobiles, iron and steel, petroleum, chemicals and explosives, groceries, and "all commodities."

Car loadings are compiled weekly by the Association of American Railroads, Washington. They are furnished by the reporting railroads, the information being assembled and released to the newspapers on Friday of the week following that covered by the report. The printed statement is ready for mailing on the Tuesday following the week covered by the report. In January of each year, a summary of the weekly reports is published, which report also gives the districts into which the report is divided and the names of the railroads included in each.

Graphs of carloadings for the past six years show a marked similarity, indicating distinct seasonal characteristics. The peak is usually in the late summer or early fall, presumably when crops are being moved to markets. Early July sees a marked drop, presumably during

mid-year inventory taking, and December experiences an abrupt decline. Early spring witnesses the reaching of the first top of the year, probably when goods made during the winter are moving to destinations, many of them materials for outdoor work and construction, for use as the weather becomes milder.

The record of all time for carloadings for a year was 1926 at 53,098,819 cars. The total for 1936 was 36,063,307 cars. It is interesting to observe that 1929 instead of 1926 is the peak year for most barometers, but by 1929 trucks were taking away much traffic from the railroads. There has been a steady rise since 1932 (28,179,952 cars) which shows that despite increasing truck competition, the railroad carriers still make progress.

For reporting carloadings, the United States is divided into seven districts: Eastern, Allegheny, Pocahontas, Southern, Northwestern, Centralwestern, and Southwestern districts.

Reporting railroads classify their carried goods in eight divisions: Grain and grain products, livestock, coal, coke, forest products, ore, merchandise in less than carloads, and miscellaneous. Coal and

Next Article:
Copper

merchandise each represent about 25% of the total revenue freight, while "miscellaneous," always an important classification among barometers, represents 37%.

Miscellaneous freight not only constitutes the largest percentage of the total freight movement, but it also most faithfully reflects fluctuations in general business activity. Coal movements have not proved as good a barometer as might be expected. Loadings of coal are erratic because of the influence of strikes and abnormal weather conditions. Strikes and threats of strikes have been more numerous than in any other industry. The threat of a strike causes unusually heavy movements until terms have been agreed upon. Then consumers draw on accumulated stocks and there is an abnormal decline in car loadings.

Thus the New York Times gives miscellaneous car loadings twice as much weight as the index of all other loadings because of its apparent reliability as a true index.

Occasionally individual cities and railroads issue carloadings reports. Thus the Chamber of Commerce of Waterbury, Conn., gives monthly statistics on tonnage of goods received in cars and the tonnage which leaves the city.

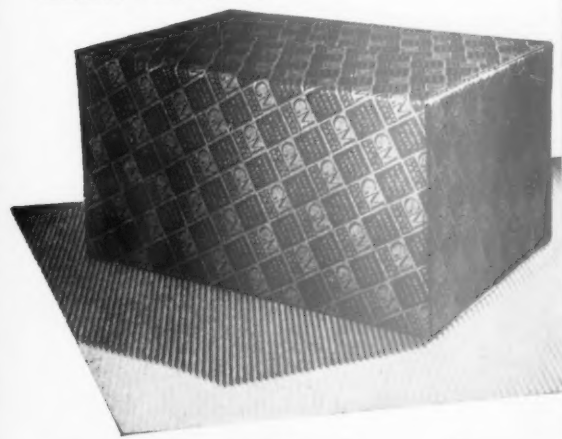
Besides the general interest in carloadings on the part of economists, statisticians, and business men generally, there is an especial interest on the part of those who furnish the railroads with equipment. Thus as carloadings increase, the steel maker knows that rails and track accessories are wearing out faster and must be replaced all the sooner, as does the maker of freight cars and locomotives. Some steel rail makers have developed a rough formula, taking into consideration the better quality of rails made each year, the larger capacity of freight cars, etc. by which they believe that they can estimate the tonnage of rails which will be bought the next season. The purchase of a million tons of rails in a year means brisk carloadings the previous year.

The newly-inaugurated statistics
Continued on page 66



Identification WITHOUT FAIL . . .

Something new... the shipping box you've been waiting for, by HINDE & DAUCH, with an all-over pattern of your trade-mark or slogan as an integral part of the background of the box. It identifies your product. It advertises your brand. It protects your reputation. It increases good will. Investigate its possibilities without fail.



HINDE & DAUCH Corrugated Shipping Boxes

THE HINDE & DAUCH PAPER COMPANY
340 DECATUR STREET, SANDUSKY, OHIO

Send me your FREE book, "Modern Shipping Boxes"

Name _____

Company _____

Address _____



H&D Protects!
IN TRANSIT!

F. O. B.

(Filosofy of Buying)

MAJOR GORDON W. ("Pawnee Bill") LILLIE, meeting a delegation of Tulsa purchasing agents at their April outing, opines that conditions have changed but little in the great southwest since his own wild and wooly youth. "The Indians used to scalp their victims," he remarked, "but I understand that you purchasing men skin 'em."

● ●

"Some people are paid for what they do," said the Old Line Buyer (*as he okayed the monthly invoice for washing the office windows*)—"and some for what they know" (*as he carefully tucked his salary check into the worn wallet*)—"and some" (*as he handed an order for a gross of type-writer ribbons to the boss's nephew's former Princeton roommate*) "for whom they know."

● ●

THE DALLAS COUNTY P.A., B. A. Phillips, shows considerable ingenuity as he turns salesman to dispose of 210 old ballot boxes, ousted by the mechanical age as typified by new automatic voting machines. "They're just right for fishing tackle boxes and picnic baskets," he announces. "Since they are well made of metal, they would be excellent for keeping beer cool on a picnic." The line, just as on election day, forms to the right.

● ●

Just a year ago this month we published a special article on the splendid job that Pittsburgh purchasing men accomplished in the flood emergency. Today it rates only this modest paragraph, for if we can credit newspaper reports from the semi-amphibian convention city, flood stage at the Golden Triangle is getting to be practically a normal condition. Convention delegates please bring their galoshes.

● ●

THE COUNTY GRAND JURY at Martinez, Cal., voluntarily addresses a letter to the Board of Supervisors to go on record with the opinion that Purchasing Agent J. H. Morrow is a competent and efficient official, and complimenting him on maintaining a practical and complete system for purchases. Which is high praise indeed, though personally we have been quite content to escape even the most benevolent attentions of the G. J.

Ho, Hum!

A purchaser needed some steel
To finish an automobile.

The mill couldn't ship it,
The buyer said, "Skip it,
We'll run the dam' bus on one wheel."

A peddler who covered Iowa
Found trade getting slower and slower,
So he murmured, "Methinks
I'll go out to the links
And whittle away at my scowa."

A design engineer at Mt. Pleasant
Was so hot he was fair incandescent.
His pet avocation
Was specification
To make stocks on hand obsolescent.

● ●

THE TROUBLE with this foreign trade balance is that it never seems to be in quite the right state of equilibrium. When we get the quantities adjusted to our satisfaction, there's still something left to be desired as to kind. We're exporting too much iron and steel scrap, and not enough cotton; and we're importing too many fabricated products and not enough burlap and rubber. Or maybe we're just hard to satisfy.

● ●

Expert legal opinion at Trenton, N. J., rules that one bid constitutes competition, provided that a general invitation for bids has been extended, even though the specifications for \$170,000 worth of car inspection equipment are said automatically to exclude all but one supplier.

● ●

FROM THE pre-convention issue of *The Purchasing Agent*, September 1917, we quote: "All roads lead to Pittsburgh, but take a train that reaches there on October 9th." We will revise that date to May 23rd, and modernize the transportation advice to include bus, car, plane or roller skates, as you may prefer. But the general idea is still sound. Mecca trip to the Mecca of purchasing men this month. It will pay you handsomely to sit in with your fellow buyers. We'll be seein' ya.

22nd Annual Convention and Inform-a-Show

NATIONAL ASSOCIATION OF PURCHASING AGENTS

William Penn Hotel, Pittsburgh

May 24-27, 1937

Welcome!

The Purchasing Agents Association of Pittsburgh extends a most cordial welcome to the members of the National Association attending the twenty-second annual meeting of the N.A.P.A. in Pittsburgh, May 24 to 27th.

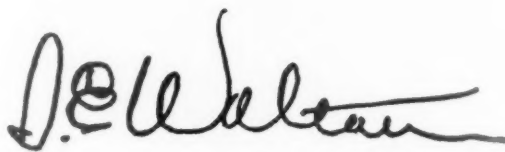
For the convention, Pittsburgh offers a program that is appropriate to the business conditions of today. It will be presented clearly and ably. You are urged to take part in the discussions.

The program will be supplemented with visits to representative Pittsburgh industries. We want you to see our producing units.

Pittsburgh offers an entertainment schedule modestly, and hopes that you will find it a pleasant foil to the business activities of the program.

Our chief concern is that you may find in this convention a value approximating your expenditure of time and money in attending it. Few men are equal to the task of thinking out all of today's purchasing problems alone. It is only by exchange of ideas that one can hope to cope with the multitude of changes in the industrial picture. Therefore, we urge you to attend the meetings, to take part in the discussions. Learn from the exchange of opinions, and contribute your share. Get acquainted with your fellow members.

If you will take active part, Pittsburgh need not worry about the success of the convention—it will be assured, and you will be the richer for the experience.



GENERAL CHAIRMAN

Twenty-Second Annual International Convention National Association of Purchasing Agents William Penn Hotel, Pittsburgh May 24 - 27, 1937

PROGRAM

MONDAY, MAY 24

Forenoon

GENERAL CONVENTION SESSION

Ball Room—17th Floor

- 9:30 CHAIRMAN—Irvin E. Walton, Chairman, General Convention Committee; Purchasing Agent, Heppenstall Co., Pittsburgh, Pa.
- 9:40 INVOCATION: Rev. Father Thomas F. Coakley, Pastor, Sacred Heart Church, Pittsburgh, Pa.
- 9:45 ADDRESS OF WELCOME: Hon. Cornelius C. Scully, Mayor of the City of Pittsburgh, Pa.
- 10:00 GREETINGS: Arthur J. Goetz, Vice President, N.A.P.A.; Purchasing Agent, River Raisin Paper Company, Munroe, Mich.
- 10:10 RESPONSE: Carleton A. Kelley, President, N.A.P.A.; Purchasing Agent, The Nevada-California Electric Corporation, Riverside, Calif.
- PRESIDING—C. A. Kelley, President, N.A.P.A.
- 10:25 REPORT OF SECRETARY-TREASURER, by G. A. Renard, Secretary-Treasurer, N.A.P.A., New York, N. Y.
- 10:30 REPORT: *Business Conditions and Price Trends with Recommended Purchasing Policy*, by Fred J. Heaslip, Chairman, N.A.P.A. Business Survey Committee; Purchasing Agent, Fairbanks, Morse & Company, Chicago, Ill.
- 10:45 SUBJECT: INDUSTRY'S PROBLEMS AND PROGRAM
- ADDRESS: *As a Government Economist Sees It*—Leon Henderson, Economist, Works Progress Administration, Washington, D. C.
- 11:25 ADDRESS: *As an Industrial Executive Sees It*—Ralph E. Flanders, President, Jones & Lamson Machine Co., Springfield, Vt.

Afternoon

GENERAL CONVENTION SESSION

Ball Room—17th Floor

- PRESIDING—John K. Conant, Purchasing Agent, General Printing Ink Corporation, New York, N. Y.

- 2:00 ADDRESS: *Copper*—Albert E. Petermann, Vice President, Calumet and Hecla Consolidated Copper Company, New York, N. Y.
- DISCUSSION, led by Harry L. Erlicher, General Purchasing Agent, General Electric Company, Schenectady, N. Y.
- 2:45 ADDRESS: *Lumber*—Henry J. Eckstein, President, Foresta Factors Inc., New York, N. Y.
- DISCUSSION, led by James M. Alexander, Purchasing Agent, Tennessee Furniture Corporation, Chattanooga, Tenn.
- 3:30 ADDRESS: *Tin, Lead and Zinc*—C. S. J. Trench, Editor, *American Metal Market*, New York, N. Y.
- DISCUSSION, led by C. R. Stevens, Purchase Engineer, Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa.
- 4:15 ADDRESS: *Purpose and Plan of Proposed N.A.P.A. Purchasing Handbook*; and Discussion of Chapter on *General Purchasing Policies*—Donald G. Clark, Chairman, National Committee on Education, Comptroller, Brown & Sharpe Mfg. Co., Providence, R. I.
- DISCUSSION, led by Geo. E. Price, Jr., General Purchasing Agent, Goodyear Tire and Rubber Company, Akron, Ohio.
- 5:00 ANNUAL MEETING OF NATIONAL DIRECTORS
- Ball Room—17th Floor
- PRESIDING—C. A. Kelley, President, N.A.P.A.; Purchasing Agent, The Nevada-California Electric Corporation, Riverside, Calif.

DINNER MEETINGS

- 6:30 IRON AND STEEL SESSION, sponsored by National Committee on Iron and Steel. Ball Room—17th Floor.
- PRESIDING—W. W. MacMillen, Chairman of the Committee; Director of Purchases, National Malleable and Steel Castings Company, Cleveland, Ohio.
- SUBJECT: The Steel Industry
- ADDRESSES: J. H. Van Deventer, Editor, *The Iron Age*, New York, N. Y.
- Benjamin F. Fairless, President, Carnegie-Illinois Steel Corporation, Pittsburgh, Pa.

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AT THE INFORM-A-SHOW

BOOTHS-279 and 280

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TUESDAY, MAY 25

Forenoon

GENERAL CONVENTION SESSION

Ball Room—17th Floor

PRESIDING—Jos. McRobbie, Purchasing Agent, American Blower Corporation, Detroit, Mich.

9:30 ADDRESS: *Refractories*—Dr. John D. Sullivan, Chief Chemist, Battelle Memorial Institute, Columbus, Ohio.

DISCUSSION, led by Ralph M. Bowman, In Charge of Refractory Research, Republic Steel Corporation, Cleveland, Ohio.

10:15 ADDRESS: *Coke and Other By-Products of Coal*—C. J. Ramsburg, Vice President, Koppers Company, Pittsburgh, Pa.

DISCUSSION, led by Clayton A. Wolfe, Director of Purchases, Monsanto Chemical Company, St. Louis, Mo.

11:00 ADDRESS: *The Place of the Purchasing Department in the Industrial Organization*, Chapter of Purchasing Handbook—Frank D. Bryant, District Purchasing Agent, Standard Oil Company of California, San Francisco, Calif.
DISCUSSION, led by James MacPherson, Vice President in Charge of Purchases, Standard Oil Company of California, San Francisco, Calif.

Afternoon

GENERAL CONVENTION SESSION

Ball Room—17th Floor

PRESIDING—Charles L. Sheldon, Purchasing Agent, Hood Rubber Company, Inc., Watertown, Mass.

2:00 ADDRESS: *Petroleum and Its Products*—Dr. Paul D. Foote, Executive Vice President, Gulf Research and Development Corporation, Harnarville, Pa.

DISCUSSION, led by Carleton Reynell, General Purchasing Agent, Worthington Pump and Machinery Corporation, Harrison, N. J.

2:45 ADDRESS: *Aluminum*—S. K. Colby, Vice President, Aluminum Company of America, Pittsburgh, Pa.

DISCUSSION, led by Edward T. Gushée, Vice President, The Detroit Edison Company, Detroit, Mich.

3:30 ADDRESS: *Price Trend Summary*; Review of the economic position of the commodities featured on the program—H. N. McGill, President, McGill Commodity Service, Inc., Auburndale, Mass.

DINNER MEETINGS

6:30 COAL SESSION, sponsored by National Committee on Coal. Urban Room.

PRESIDING—Thos. W. Harris, Jr., Chairman of the Committee; Division Purchasing Agent, E. I. du Pont de Nemours & Company, Wilmington, Del.

ADDRESS: *Coal Classification and Selection*—H. J. Rose, Industrial Fellow, Mellon Institute of Industrial Research, Pittsburgh, Pa.

ADDRESS: Charles F. Hosford, Jr., Chairman, National Bituminous Coal Commission, Washington, D. C.

ADDRESS: J. D. A. Morrow, President, Pittsburgh Coal Company, Pittsburgh, Pa.

WEDNESDAY, MAY 26

Forenoon

GENERAL CONVENTION SESSION

Ball Room—17th Floor

PRESIDING—John H. Mohr, Purchasing Agent, John H. Mohr & Sons, Chicago, Ill.

9:30 ADDRESS: *Paper*—Arthur V. Howland, Vice President, Tileston & Hollingsworth Company, Boston, Mass.

DISCUSSION, led by John P. Sanger, Vice President in Charge of Purchases, United States Gypsum Company, Chicago, Ill.

10:15 ADDRESS: *Glass*—R. A. Miller, Technical Sales Engineer, Pittsburgh Plate Glass Company, Pittsburgh, Pa.

DISCUSSION, led by George P. Brockway, Purchasing Agent, American Optical Company Southbridge, Mass.

11:00 SUBJECT: THE ESSENTIAL ORGANIZATION AND PRACTICAL PROCEDURE FOR EFFICIENT OPERATION OF A PURCHASING DEPARTMENT.

(1) *Organization of a Purchasing Department*, Chapter of Purchasing Handbook—Ernest H. Hawkins, Purchasing Agent, E. I. du Pont de Nemours & Company, Wilmington, Del.

(2) *Presentation of Prize Winning Paper*.

(3) *Summary of all Papers Presented in Contest*—Stuart F. Heinritz, Editor, PURCHASING, New York, N. Y.

DISCUSSION, led by James M. Knowles, Assistant Purchasing Agent, Consolidation Coal Company, Fairmont, W. Va., and Milton Maddux, Hamilton County Purchasing Agent, Cincinnati, Ohio.

Evening

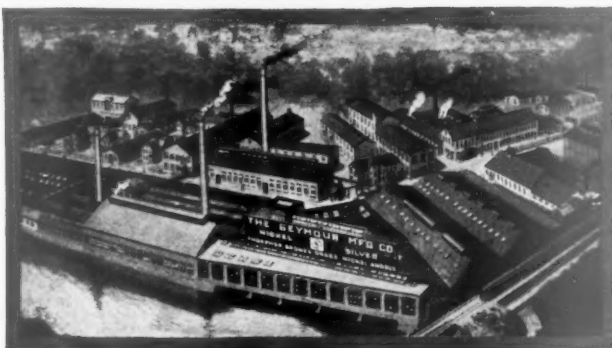
ANNUAL BANQUET

Ball Room—17th Floor Hotel William Penn
PRESIDING OFFICER, Carleton A. Kelley, President, National Association of Purchasing Agents; Purchasing Agent, The Nevada-California Electric Corporation, Riverside, Calif.

BEST WISHES FOR ANOTHER SUCCESSFUL CONVENTION

OF THE NATIONAL ASSN. OF PURCHASING AGENTS

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SEYMOUR, CONNECTICUT

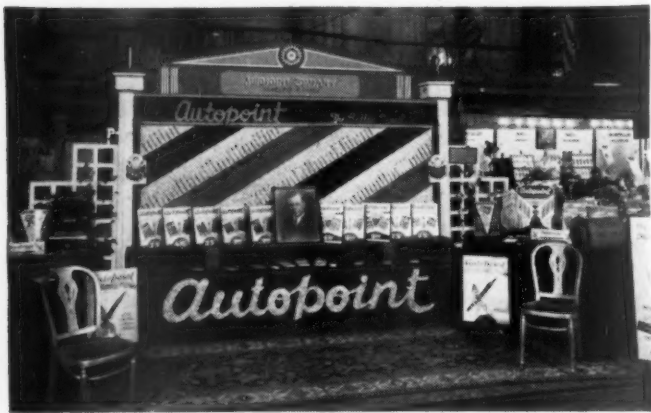


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INVOCATION, Rev. Hugh Leith, D.D., Pastor,
Mount Lebanon Presbyterian Church, Pitts-
burgh, Pa.

GENERAL CONVENTION CHAIRMAN, Irvin E.
Walton, Purchasing Agent, Heppenstall Co.,
Pittsburgh, Pa.

TOASTMASTER, Arthur G. Hopcraft, Purchasing
Agent, Cleveland Worm and Gear Company,
Cleveland, Ohio.

PRESENTATION OF J. SHIPMAN MEMORIAL
MEDAL, by C. G. Bunnell, Chairman of
Committee on Award; General Purchasing
Agent, Westinghouse Electric & Manufac-
turing Company, East Pittsburgh, Pa.

IN MEMORIAM, George M. Tisdale, Vice Presi-
dent, National Association of Purchasing
Agents; Director of Purchases, United States
Rubber Products, Inc., New York, N. Y.

ADDRESS, Capt. Patrick Irving O'Hay.

PRESENTATION OF CHICAGO AWARD TO PUR-
CHASING PUBLICATIONS, by George P. Brock-
way, Chairman of Committee on Award;
Purchasing Agent, American Optical Com-
pany, Southbridge, Mass.

PRESENTATION OF OTHER AWARDS: New Or-
leans Cup Convention Attendance Award;
N.A.P.A. Golf Championship Award.

DANCING

THURSDAY, MAY 27

Forenoon

GENERAL CONVENTION SESSION

Ball Room—17th Floor

PRESIDING—Wm. Davies, Purchasing Agent,
Dominion Foundries & Steel, Ltd., Hamilton,
Ont., Canada.

9:30 ADDRESS: *The Commodity Market*—A. W.
Zelomek, President, International Statistical
Bureau; Economist, Fairchild Publications,
New York, N. Y.

10:30 ADDRESS: *Contribution of Research to Indus-
try*—Dr. Garson Meyer, Material and Pro-
cess Research Department, Eastman Kodak
Company, Rochester, N. Y.

11:30 ADDRESS: *Where Do We Go From Here?*—Dr.
Neil Carothers, Director, College of Business
Administration, Lehigh University, Bethle-
hem, Pa.

INTRODUCTION OF NEW NATIONAL OFFICERS.
ADJOURNMENT.

Plant Visits

Plant inspection trips have been arranged at the
Aluminum Co., The Aluminum Cooking Utensil Co.,
Jones & Laughlin, Mesta Machine Co., and Westing-
house Electric & Mfg. Co. In addition, about forty
other plants will welcome visitors during the conven-
tion.

SHIPPING BOXES HAVE TO

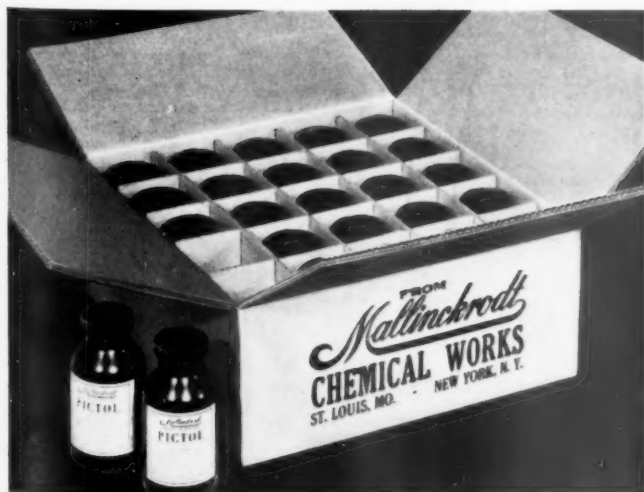


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It's no job for a weakling . . . protecting shipments in today's mad hustle and bustle. • Bumps and thumps that would make a husky man wince are the daily lot of a shipping box. Shipping clerks maul it . . . truck drivers toss and heave it . . . freight handlers push and pull it . . . and its journey usually ends with a nasty drop on some hard store floor! No, it's no job for a weakling. • In Gaylord Boxes, manufacturers have found shipping containers that "can take it." Their products are protected by the Gaylord "Margin of Safety" . . . the extra strength to cope with unexpected stress and strain. An ever increasing use of Gaylord shipping boxes (both corrugated and solid fibre) is proof of their outstanding ability to deliver their cargoes safely. They

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[Be sure to visit the Gaylord Booths No. 148 and 149 at the National Association of Purchasing Agents Convention in Pittsburgh, May 24th to 27th.]



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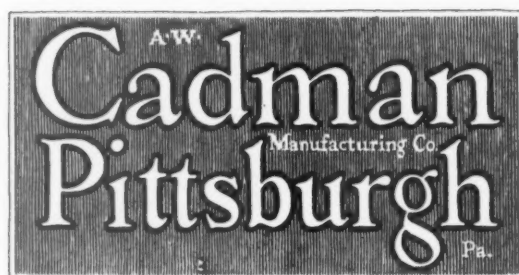
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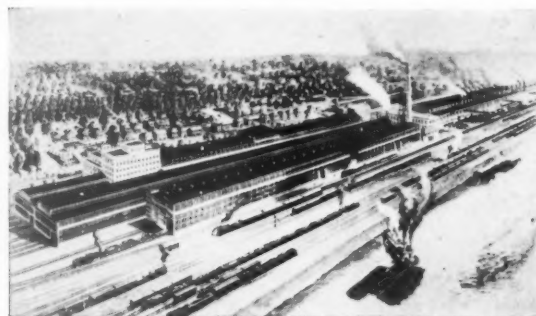
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Lunkenheimer representatives will be happy to greet you at Booth No. 23.

REPRESENTATIVES IN ATTENDANCE

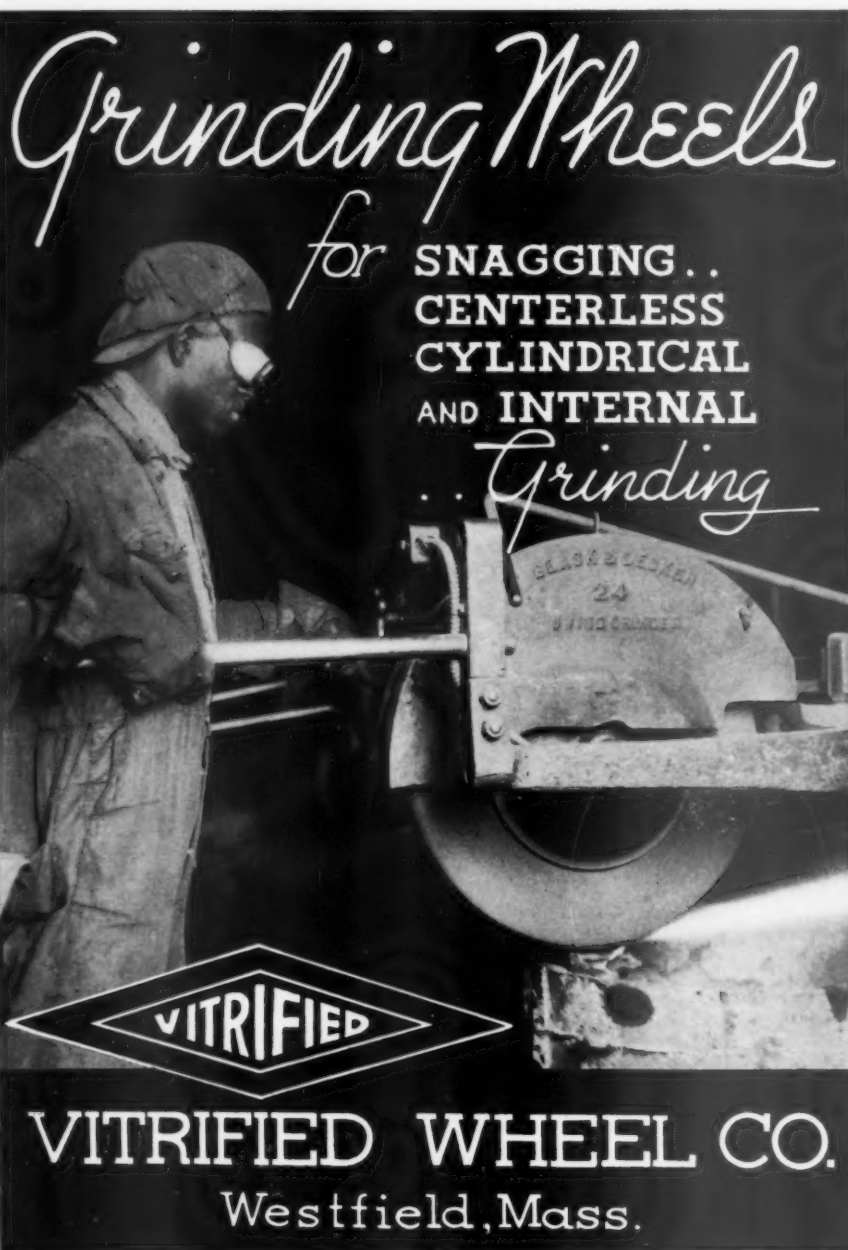
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Group and Committee Meetings

CHEMICAL AND ALLIED PRODUCTS—BUYERS' GROUP. *Luncheon meeting*, Tuesday, May 25, Adonis Room. *Presiding:* Howard W. Elkinton, Philadelphia Quartz Co. *Address:* "What is New in Packaging in the Chemical Industry," by Hugh Craig, Managing Editor, *Oil, Paint & Drug Reporter*, New York. *Address:* "Importance of the Paper Bag in the Chemical Industry," by R. W. Lahey, American Cyanamid Co., New York.

COAL COMMITTEE. *Luncheon meeting*, Tuesday, May 25, Parlors E and F. *Presiding:* Thos. W. Harris, Jr., E. I. du Pont de Nemours & Co. Wilmington.

CREDENTIALS COMMITTEE. *Luncheon meeting*, Tuesday, May 25, Parlor D.

EDITORS GROUP. *Luncheon meeting*, Monday, May 24, Parlors E and F. *Presiding:* H. M. Cosgrove, *Mid-Continent Purchaser*, Tulsa. *Discussion:*

led by H. I. Patten, *Philadelphia Purchaser*, and Earl White, Washington Purchasing Agent and Manufacturer.

EDUCATION COMMITTEE. *Joint luncheon meeting* with Committee on Purchasing Department Organization & Procedure, Monday, May 24, Adonis Room. *Presiding:* Donald G. Clark, Brown & Sharpe Mfg. Co., Providence.

EDUCATIONAL AND INSTITUTIONAL BUYERS GROUP. *Joint dinner meeting* with Governmental Purchasers Group, Monday, May 24, Cardinal Room. *Presiding:* J. W. Nicholson, City of Milwaukee.

Address: "Budgets," by Carl H. Chatters, Executive Director, Municipal Finance Officers' Association, Chicago.

Address: "Ramifications of the Robinson-Patman Act."

Reports by Wm. G. Morse, Harvard University; J. W. Nicholson, City

of Milwaukee; and Walter N. Kirkman, Maryland State Board of Health.

FINANCIAL GROUP. *Luncheon meeting*, Monday, May 24, Silver Room. *Presiding:* C. W. Fellows, Federal Reserve Bank of Virginia, Richmond. *Discussion:* Purchase of office equipment.

Luncheon meeting, Tuesday, May 25, Silver Room. *Presiding:* C. W. Fellows.

Discussion: Proposed specifications for paper.

Election of officers.

GOVERNMENTAL PURCHASERS GROUP. *Joint luncheon meeting* with Educational and Institutional Buyers Group, Monday, May 24, Cardinal Room. *Presiding:* J. W. Nicholson, City of Milwaukee.

Afternoon session, Wednesday, May 26, Adonis Room. *Presiding:* J. W. Nicholson. Round table discussion and election of officers.

HENDRICKS CLUB. *Annual Dinner*, Monday, May 24, Blue Room and Parlor F.

MINING, SMELTING & REFINING GROUP. *Luncheon meeting*, Tuesday, May 25. *Presiding:* E. G. Wertheimer, Federated Metals Division, American Smelting & Refining Co., Detroit.

NEW ORLEANS ATTENDANCE CUP COMMITTEE. *Luncheon meeting*, Tuesday, May 25, Parlor D.

OIL COMPANY BUYERS GROUP. *Luncheon meeting*, Tuesday, May 25, Blue Room. *Presiding:* O. E. McClatchey, Barnsdall Refining Co., Tulsa.

Discussion: Proposed simplification of casing sizes.

PAPER SHIPPING CONTAINER COMMITTEE. *Luncheon meeting*, Wednesday, May 26, Cardinal Room. *Presiding:* James M. Berry, The Drackett Co., Cincinnati. *Address:* "The Market Situation on Container Boards," by A. G. Goldsmith, Mead Corp., New York.

Discussion: The purchasing agent's position on corrugated fiber containers; implications of inventory policies on price and delivery.

PRESIDENTS AND SECRETARIES. *Luncheon meeting*, Thursday, May 27, Cardinal Room. *Presiding:* G. A. Renard, Secretary-Treasurer, N.A.P.A., New York.

PUBLIC UTILITY BUYERS GROUP. *Luncheon meeting*, Wednesday, May 26, Blue Room.

Presiding: E. T. Gushée, The Detroit Edison Co.

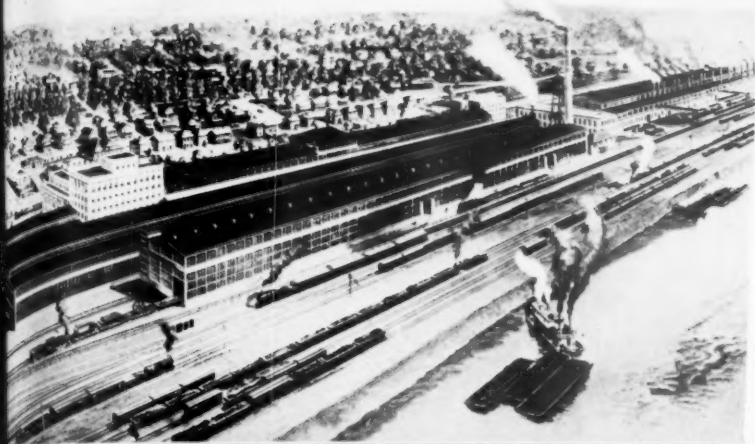
Address: "Economic Effects of the Robinson-Patman Act and Similar State Legislation," by H. N. McGill, McGill Commodity Service, Auburn-dale, Mass.

PULP AND PAPER MANUFACTURERS—BUYERS' GROUP. *Afternoon session*, Tuesday, May 25, Crystal Room. *Presiding:* Oakley W. Dexter, Crown Wilamette Paper Co., San Francisco.

PURCHASING DEPARTMENT ORGANIZATION AND PROCEDURE COMMITTEE. *Joint luncheon meeting* with the Education Committee, Monday, May 24, Adonis Room.

RESOLUTIONS COMMITTEE. *Afternoon session*, Wednesday, May 26, Parlor D.

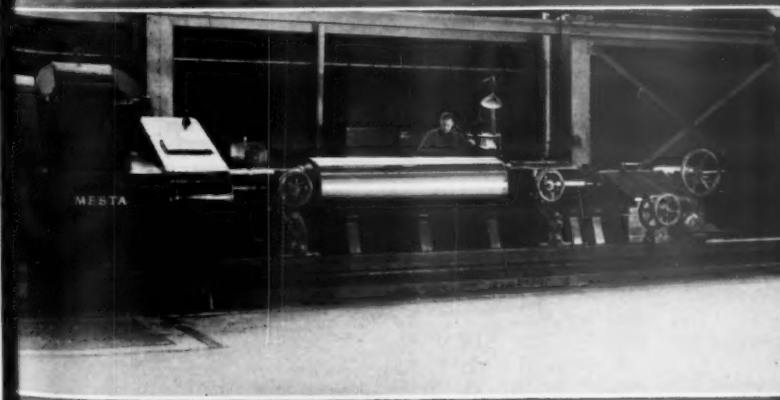
TEXTILE COMMITTEE. *Luncheon meeting*, Monday, May 24, Parlors B and C. *Presiding:* Robert C. Kelley, Converse Rubber Co., Malden, Mass.



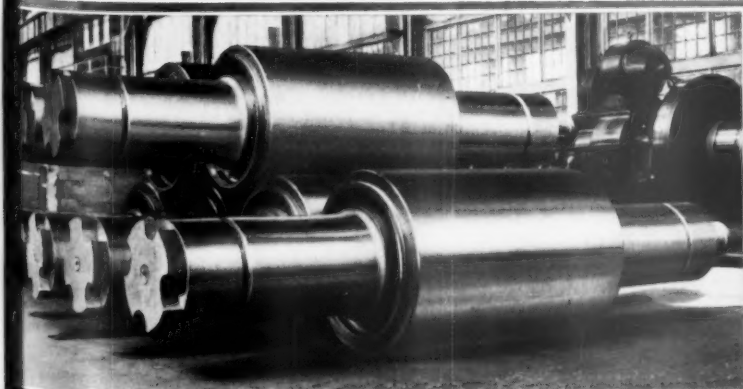
Plant and General Offices
West Homestead, Pa. (Pittsburgh District)



79" Four High Continuous Hot Strip Mill



60" Mesta Roll Grinder

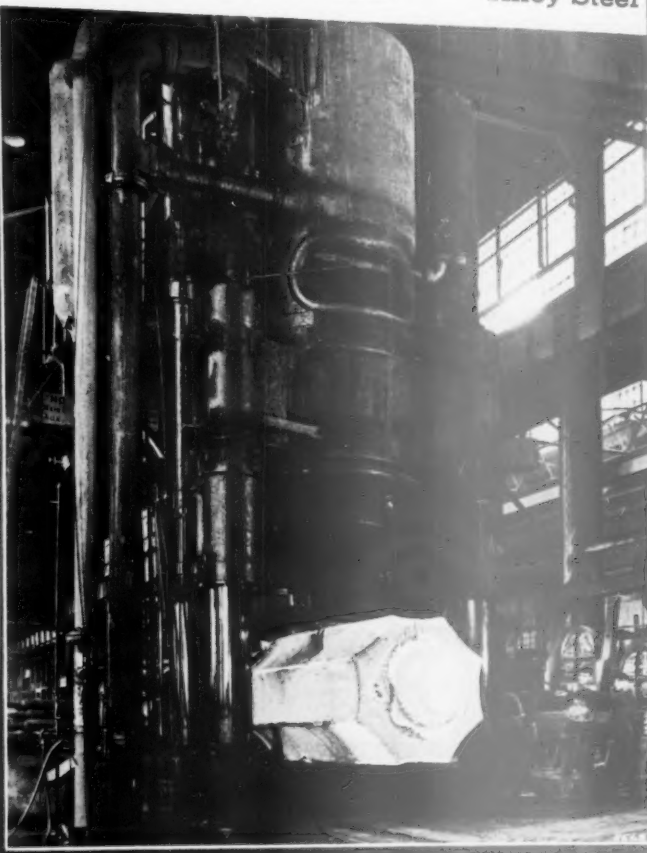


Group of Mesta Rolls

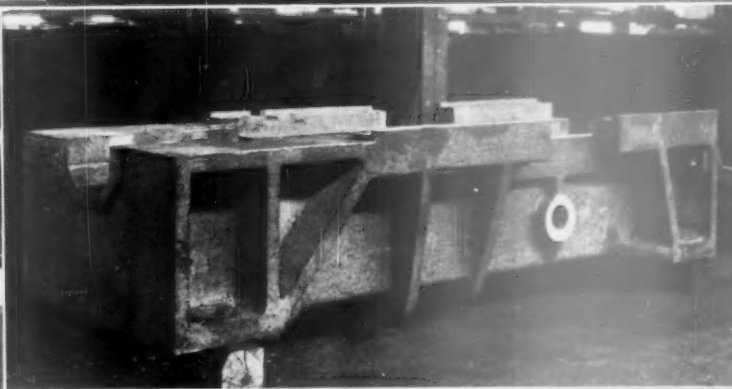
MESTA PRODUCTS

ROLLS AND STEEL MILL EQUIPMENT

Mill Drives Gears Pinions
Roll Grinders Roll Lathes
Trimmers Levellers Shears
Continuous Pickling Lines Pickling Machines
Electro Cleaning Lines
Forging Presses Annealing Boxes
Castings Forgings
Iron Alloy Iron Steel Alloy Steel



Forging 58" Ingot In 2,000 Ton
Mesta Steam Hydraulic Forging Press

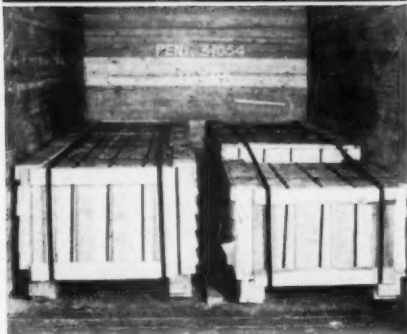


Mesta Steel Casting

MESTA MACHINE COMPANY

PITTSBURGH, PA.

**PROTECT NET
PROFITS**



by Bulkbinding
YOUR CARLOAD SHIPMENTS

● Assuring substantial direct savings on packing materials and labor . . . sharp decreases in freight bills and damage losses . . . Signode Bulkbinding offers shippers a practical method for offsetting rising selling and manufacturing costs.

Signode Bulkbinding has been successfully applied to over 200 different classes of products . . . Everything from fire brick to mixed shipments. The example illustrated here demonstrates its versatility . . . shows the simplicity of application and saving on dunnage and bracing that reduces loading costs on an average of \$2.06 per car.

Whether your shipping activities present problems in handling carload shipments, single packages of any size and shape, or both . . . it will pay you to consult a Signode Packing Engineer. He will help you develop the safest, most economical method of keeping tight control of your products from plant to customer.

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371 Furman St., Brooklyn, N. Y.
454 Bryant St., San Francisco, Calif.
Grant Bldg., Pittsburgh, Pa.

SIGNODE
STEEL STRAPPING CO.

Inform-a-Show

A Guide to the Exhibits

Booth
No.

142 Acme Steel Co., Chicago. The Acme Steelstrap system of package reinforcement. Acme Superstrip—hot, cold, galvanized, stainless, and colored strip steels. Floorsteel, for armoring industrial floors.

11-B Air Reduction Sales Co., New York. Welding and cutting apparatus and supplies; portable cutting machines; Airco oxygen, acetylene, and rare gases.

167 American Brass Co., Waterbury, Conn. Standard commercial forms of copper, and special alloys fabricated into parts and equipment. Everdur, Beryllium Copper, and Electro-Sheet, a paper thin copper sheet produced by electrolysis.

286 American Crayon Co., Sandusky, Ohio. Adhesives, chalks, marking crayons, for office and industrial use; Permex economy writing fluid. See page 69.

1 American Emblem Co., Inc., Utica, N. Y. Art metal stampings in all metals, for a wide variety of commercial and industrial uses.

27 American Rolling Mill Co., Middletown, Ohio. Armco pure iron; iron and steel sheets, plates, strip and coils, stainless steel, wrought steel wheels, spiral welded pipe.

151 American Spring & Mfg. Corp., Holly, Mich. All types of industrial springs.

165 Autopoint Co., Chicago. Mechanical pencils, in Bakelite and Pyralin colors, lead and eraser refills. Desk pads and accessories, leather goods, pocket Postalett scales. Sight-and-sound presentation, "Pointed Profits." See page 38.

21 The Wallace Barnes Co., Bristol, Conn., Division of Associated Spring Corp. Wire and flat springs of all descriptions, small stampings, spring washers, small assemblies, and cold rolled spring steel. Continuous moving picture on spring materials and manufacture. See page 75.

157 Benjamin Electric Mfg. Co., Des Plaines, Ill. Electric lighting specialties, illuminating and wiring devices, panelboards, industrial signals.

2 Bethlehem Steel Co., Bethlehem, Pa. Standard and special shapes, bolts and nuts.

175 Boston Woven Hose & Rubber Co. of Pittsburgh, Pa. Industrial hose and transmission belting.

135 Bussman Mfg. Co., St. Louis. A full line of industrial, automotive and domestic fuses. A handbook on "Fuseology" will be distributed.

3 Chase Brass & Copper Co., Inc., Waterbury, Conn. Brass, copper, bronze and nickel silver sheet, rod, wire, tubing, extruded shapes, welding rods, fittings, nails, tacks, escutcheon pins; fabricated parts.

153 Chemical Lime Co., Inc., Bellefonte, Pa. Chemical lime.

27 Clipper Belt Lacer Co., Grand Rapids, Mich. Belt lacers, cutters, fasteners and connecting pins.

Booth
No.

146 Columbia Ribbon & Carbon Mfg. Co., Glen Cove, N. Y. Typewriter ribbons and carbon papers for regular and special requirements and for all duplication uses—Pinnacle, Rainbow, and Marathon. See page 61.

281 The Cleveland Container Co., Cleveland. Paper tubes, cores, and containers.

32 Crane Co., Chicago. Valves, fittings and pipe in brass, iron, steel, and alloys, for all pressures and all uses. The exhibit stresses the coordination of manufacturing, distributing and servicing organizations.

139 Joseph Dixon Crucible Co., Jersey City, N. J. Pencils—Eldorado, Ticonderoga, Best, Anadel, and Thinx—black and colored; Claro cleaner; lumber and textile crayons.

154 C. B. Dolge Co., Westport, Conn. Disinfectants, deodorants, insecticides, exterminators, cleaning compounds.

20 Eagle Pencil Co., New York. Lead pencils in black and colors, mechanical pencils, refill leads, fountain pens, erasers.

150 B. K. Elliott Co., Pittsburgh. Drawing materials, drafting room supplies, surveying instruments.

156 The Fairmont Creamery Co., Pittsburgh. Food products.

29 Eberhard Faber Pencil Co., Brooklyn, N. Y. Lead pencils, black and colored—Mongol and Van Dyke; fountain pens, mechanical pencils.

138 Firth-Sterling Steel Co., McKeesport, Pa. Tungsten carbide tools and dies, high speed and tool steels, tool holder bits, wire products. See page 40.

28 The Garlock Packing Co., Palmyra, N. Y. The new Klosure unit type oil seal, non-porous, resilient, and resistant to heat, oil, water, and most chemical or acid solutions.

148 Robert Gaylord Co., St. Louis, and affiliated companies. Comprehensive display of corrugated and solid fiber shipping cartons, and folding paper boxes, in standard types and styles for all commercial requirements; also paper bags. See page 39.

172 Graton & Knight Co., Worcester, Mass. Research leather transmission belting, engineered to fit specific requirements and for minimum stretch under full load tension; specialized leather packings, belt dressing.

4-B The Graybar Electric Co., Inc., Pittsburgh. Graphic display featuring nationwide service in the distribution of 60,000 electrical items.

19 Gulf Oil Corp., Pittsburgh. "Lubrication—the Indispensable Partner of Industry" is the theme of this exhibit, presenting 400 industrial lubricants of general and special applications.

285 The Heltzel Steel Form & Iron Co., Warren, Ohio. Construction items, steel forms, plate work.

Dropping O.C.* to a new low



* Operating Costs

PURCHASING officials who are alert to economies in operating costs have found one sure answer in HEWITT industrial rubber goods. To purchasing men mindful of operating costs, who are concerned with keeping the lid down, HEWITT products hold unusual interest. For in back of the production of HEWITT hose, conveyor and transmission belt is that main purpose . . . to add extra stamina and sturdiness, to build in longer life, to lower operating costs. Save something by a switch to HEWITT. For your convenience, HEWITT distributors are listed in the classified telephone directories of industrial centers under "Rubber Goods" or "Belting".

VISIT OUR EXHIBIT
Booth 33

NATIONAL PURCHASING AGENTS
ASSOCIATION CONVENTION
WILLIAM PENN HOTEL, PITTSBURGH

Hewitt
Rubber Corporation
Buffalo, N.Y.

REWARD

FOR THE ARREST OF THE
"ROUTINE-RACKETEER!"



Ediphone Voice Writing will pay you 20% to 50% in added business capacity

Watch out for the Routine-Racketeer! He may be attacking *your* office . . . stealing your time, holding up your plans, killing your energy with the thousand and one details of a busy business day.

Quick! Be your own "vigilante." Stop this racketeer by stopping his racket . . . *with the help of Ediphone Voice Writing!*

The Ediphone puts the Routine-Racketeer "on the spot." With it, you confirm memos, telephone conversations, inter-office communica-

tions *immediately*. You answer your mail the *first time* you read it. You dictate the moment you are ready, without waiting for your secretary to be free. And the speedy handling of these details arrests the Routine-Racketeer—rewards you with 20% to 50% added business capacity!

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Thomas A. Edison
INCORPORATED
WEST ORANGE, N. J., U.S.A.



Booth

No.

- 12 Heppenstall Co., Pittsburgh. Photomural display of manufacturing processes in the production of acid open hearth steel, die blocks, hammerheads, piston rods, pinion shafts, gears, roll sleeves, shear knives, and forgings.
- 13
- 33 Hewitt Rubber Corp., Buffalo. A wide variety of mechanical rubber goods are displayed, supplemented with a series of revolving prisms showing colorful photographs of actual field service records associated with the selection of proper mechanical products. **See page 45.**
- ★
- 169 The Hinde & Dauch Paper Co., Sandusky, Ohio. Shipping cartons and display stands, featuring the modern trend in miniature billboard advertising display on such containers. Specimens of old style printing are contrasted with effective modern adaptations, including the Selmor display stand which won the recent Wolf Award competition. **See page 31.**
- 170
- 174 Homestead Valve Mfg. Co., Coraopolis, Pa. Valves, cocks, castings. Hypressure Jenny vapor spray cleaning machines.
- 158 C. G. Hussey & Co., Pittsburgh. Brass, copper, and copper products.
- 171 Hygrade Sylvania Corp., Salem, Mass. Selected items from a comprehensive line of more than 1,500 types and sizes of lamps.
- 8 Jenkins Bros., New York. Attractive and colorful modernistic display presenting a complete line of bronze, iron, and steel valves in a variety of types, patterns, and sizes; also mechanical rubber goods, and Moncrief Scotch gauge glasses. **See back cover.**
- ★
- 10 Jones & Laughlin Steel Corp., Pittsburgh. Display of manufactured products, including hundreds of parts made of J & L improved Bessemer screw steel, Jalcase steel, and Cor-rect Balance forging steel.
- 136 Koppers Co., Pittsburgh. Roofing and waterproofing materials, creosote, tar acids; coal and gas by-products; gas plant construction.
- 137
- 176 F. J. Kress Box Co., Pittsburgh.
- 177 Corrugated shipping cartons.
- 134 The Ludlow-Saylor Wire Co., St. Louis. Woven wire screens and wire cloths in plain steel, tinned steel, galvanized, stainless, brass, bronze, copper, monel, aluminum, nickel, and other commercial metals and alloys. Sizes range from heavy grizzly screens of 1-inch thick bars down to fine gauze.
- 23 The Lunkenheimer Co., Cincinnati. Sectioned samples of bronze, iron, and steel valves for all pressures and temperatures, showing details of construction; also lubricators, boiler mountings, cocks, oil cups, grease cups, and other specialties. **See page 41.**
- ★
- 26 Mathews Conveyor Co., Ellwood City, Pa. Cut-away samples, illuminated photographs, and demonstration section of shock-absorbing, resiliently mounted roller conveyors.
- 178 L. & C. Mayers Co., New York. Representative display of fine diamond jewelry, watches, prize and gift merchandise. In actual operation, a modern electric time micrometer that accurately and rapidly determines the number of seconds per day that a watch may be gaining or losing. **See page 49.**
- ★

Booth
No.

- 14 Mesta Machine Co., Pittsburgh. Dramatized photographic display in full color, showing Mesta steel mill equipment installations, the 2,000 ton Mesta forging press, and representative castings in a variety of sizes and shapes. **See page 43.**
- ★ 4-A Mine Safety Appliances Co., Pittsburgh. Industrial safety equipment, including dust and paint respirators, abrasive masks, protective clothing.
- 141 National Bearing Metals Corp., Pittsburgh. Foundry scenes and specimen castings, including various types of mill bearings.
- 291 National Metal Edge Box Co., Philadelphia. 50th Anniversary exhibit, featuring a moving "Parade of Profitable Packages."
- 162 National Vulcanized Fibre Co., Wilmington, Del. Vulcanized fiber and Phenolite, laminated bakelite, in sheets, rods, tubes, and special shapes, including insulations, gaskets, gears, bushings, cans, boxes, and fiber headed spools.
- 282 Oakite Products, Inc., New York. Specialized industrial cleaning materials and methods, for general maintenance work and for specific applications in a wide variety of manufacturing processes. **See page 71.**
- ★ 164 Oliver Iron & Steel Corp., Pittsburgh. Forgings, bolts, and tools.
- 9 Pittsburgh Coal Co., Pittsburgh. Champion coal, deep mined, hard structure, low in ash and sulphur, mechanically cleaned and refined for steam, gas, by-product, and domestic requirements. **See page 48.**
- ★ 145 Oxford Filing Supply Co., Brooklyn, N. Y. Time-saving filing accessories for improving the service, security, and appearance of filing and transfer systems.
- 155 Pittsburgh Gear & Machine Co., Pittsburgh. Cut gears, racks, pinions.
- 30 Pittsburgh Screw & Bolt Corp., Pittsburgh. Standard and special products; rods for foundation, bridge and steel piling construction; the Dex-Bolt.
- 16 Pittsburgh Steel Co., Pittsburgh. A full line of steel, wire, and seamless tubular products.
- 17 The William Powell Co., Cincinnati. Valves, lubricators, engineering specialties.
- 22 Railway & Industrial Engineering Co., Greensburg, Pa. Operating models and actual size specimens of Hi-Pressure switch contacts, disconnecting switches, bus supports, conductor fittings, etc.
- 25 Raymond Mfg. Co., Corry, Pa., Division of Associated Spring Corp. Varied display of springs and metal stampings taken from actual plant production.
- 279 The Royal Typewriter Co., Inc., New York. The Easy Writing Royal Typewriter, featuring among many improvements: touch control, shift freedom, finger comfort keys, automatic paper lock, etc. **See page 35.**
- ★ 289 Revere Copper & Brass, Inc., New York. Copper, brass, and bronze products; sheets, rolls, strips, rods, wire, plates, extruded and drawn shapes, tubes and pipe, die pressed and hammered forgings, rivets, burrs, etc.

Booth
No.

- 24 River Raisin Paper Co., Monroe, Mich. Corrugated and fiber boards, boxes, and cases.
- 160 Wm. B. Scaife & Sons Co., Oakmont, Pa. Tanks for air, gas and liquids, gas cylinders, water softeners, water filters.
- 144 Charles A. Schieren Co., New York. Leather belting, mechanical leather goods, packing, textile leather specialties.
- 15 Scovill Mfg. Co., Waterbury, Conn. Brass, bronze and nickel silver sheet, rod, wire and tubing; fabricated products in wide variety.
- 170 Shell Petroleum Corp., St. Louis. Petroleum and its products, industrial lubricants.
- 163 Signode Steel Strapping Co., Chicago. The Signode steel strap method of package reinforcement, adaptable to virtually every type of shipment and product with increased security in transit and less weight. **See page 44.**
- ★ 161 Standard Oil Co. of Pennsylvania, New York. Petroleum and its products, industrial lubricants.
- 284 The Sterling Grinding Wheel Co., Tiffin, Ohio. Sterling Grinding Wheels, Sterlith and Sterbon Vitri-fied, Resinoid and Silicate Wheels, rubbing bricks, sticks, and other abrasive specialties.
- 140 D. A. Stuart & Co., Ltd., Chicago. Lubricants, cutting oils, liquid grinding compound.
- 152 Thomas Publishing Co., New York. *Thomas' Register of American Manufacturers*, a classified reference guide to American manufacturing industry and products; *Industrial Equipment News*, a monthly newspaper of new developments in industrial material, equipment and supplies. **See page 80.**
- ★ 159 U. S. Gutta Percha Paint Co., Providence, R. I. Barreled Sunlight paints and enamels for inside and outside use.
- 18 U. S. Steel Corp., Pittsburgh, and subsidiaries. Colorful and informative exhibit of the many types of steel and steel products produced by these companies in serving many industries. Special emphasis is placed upon USS stainless steel. Visitors' lounge. **See page 5.**
- ★ 31 Vanadium Alloys Steel Co., Latrobe, Pa. High speed and tool steel, cold drawn and ground; drill rods, flats, squares, and special shapes; stainless.
- 11-A Walworth Co., New York. Bronze, iron, and steel valves; lubricating iron and steel valves; lubricated plug valves; cast iron, malleable iron, and bronze fittings, including Wal-seal threadless bronze fittings; Still-son, Walco, and Parmalee pipe wrenches.
- 288 Wyckoff Drawn Steel Co., Pittsburgh. Steel products, cold finished bars.
- 283 The Yale & Towne Mfg. Co., Philadelphia. Materials handling equipment, skid trucks, hoists.
- 5 Youngstown Sheet & Tube Co., Youngstown, Ohio. Iron and steel products in wide variety. Working model of the 79-inch continuous mill and finishing equipment. Illuminated display of processes and industrial applications of steel.

*Certainly
there's a
DIFFERENCE*

between a cheap,
flimsy thin paper or
a heavy, bulky paper
and

**ESLEECK
THIN PAPERS**

The Esleeck grades
are rag content
papers, having
strength for erasing
and handling, thin-
ness for making
large numbers of
copies and light-
weight for mailing.

They reduce Typ-
ing, Mailing and
Filing costs. . . .

FIDELITY ONION SKIN

100% RAG

Made in White Only. Substance 7 1/2 and 9
Cockle, Smooth and Glazed Finishes.

EMCO ONION SKIN

100% RAG

Made in White and eight Colors. Substance 10.
Cockle and Glazed Finishes.

SUPERIOR MANIFOLD

25% RAG

Made in White and nine colors. Substance 8
Cockle and Smooth Finishes.

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TURNERS FALLS, MASSACHUSETTS

Champion coal

"IT'S THE BEST"



There is only one CHAMPION COAL—deep mined, hard structure coal from the famous Pittsburgh Seam . . . mechanically cleaned and refined to meet the most exacting requirements for steam, gas, by-product and domestic purposes. It is low in ash and sulphur, but exceedingly high in heat.

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Pittsburgh, Pa.

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Buffalo, N. Y.
Cleveland, Ohio
Detroit, Mich.
Erie, Pa.

Hamilton, Ont.
London, Ont.
New York City
Pittsburgh, Pa.
Philadelphia, Pa.
Toronto, Ont.

Sault Ste.
Marie, Mich.
Windsor, Ont.
Utica, N. Y.
Youngstown, O.

PITTSBURGH COAL COMPANY OF WISCONSIN

Duluth

Superior

Minneapolis

St. Paul

MILWAUKEE WESTERN FUEL COMPANY

Milwaukee

Wisconsin

PERSONALITIES in the NEWS



R. L. Warren

ROY L. WARREN has been appointed director of purchases for the Covered Wagon Co., Mt. Clemens, Mich., trailer coach manufacturers. He has been connected with the auto body industry for 29 years, of which 18 have been spent in purchasing. Formerly with Locke & Co., Rochester, and Anderson Carriage Co., Detroit, he became purchasing agent of the Briggs Mfg. Co., Detroit, six years ago. R. G. BENTLEY is assistant to Mr. Warren.

W. H. MARION has been appointed purchasing agent of the Warren, Ohio, plant of the Taylor-Winfield Corp., and J. D. ANDERSON purchasing agent at the Detroit plant.

VIRGIL D. STEINER, for the past eleven years associated with the Union Metal Mfg. Co., Canton, Ohio, as purchasing agent and more recently as secretary and member of the board of directors, has resigned to join the organization of the Riley Stoker Corp. at Worcester, Mass.

E. W. BECK has been appointed manager of purchases for the General Petroleum Corp., Los Angeles, succeeding the late Robert M. Ketchum. Mr. Beck has been with

General since 1923, when he became a clerk in the stores department at Vernon, Cal., and was serving as buyer and assistant manager of the purchasing department at the time of his new appointment. P. J. WHITELEY has been named assistant manager of purchases.

HARRY BLASINGHAM has resigned as purchasing agent of Hercules Motors Corp., Canton, Ohio, to take a position with the Schwitzer-Cummins Co. of Indianapolis.

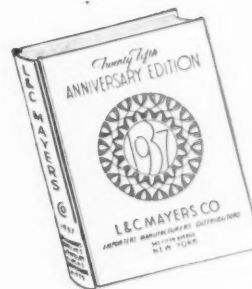
C. M. McALPIN of Indianapolis has been appointed purchasing agent for the State of Indiana. Mr. McAlpin formerly served as assistant to PAUL P. FRY, State Purchasing Agent and Excise Administrator, and has been acting purchasing agent since the department was transferred from the Public Works to the Executive Department at the beginning of the year.

FRED L. WOOD, veteran purchasing agent of the United States Envelope Company, Springfield, Mass., was guest of honor at a testimonial dinner, given at the Hotel Stonehaven by a number of his associates in the purchasing field. Mr. Wood has been in the service of the company and its predecessors for 58 years, more than 35 of which have been as head of the purchasing department.

EUGENE E. FOOTE, for many years purchasing agent of the Holyoke, Mass., plant of Worthington Pump & Machinery Corp., and for the past five years associated with the purchasing department of the company at Harrison, N. J., and Buffalo, N. Y., during a suspension of operations at the Holyoke plant, has resumed his former position coincident with the reopening of the plant last month. Mr. Foote is a past president of the Western Massachusetts Association.



**AND WE'RE TRYING
TO SERVE YOU
BETTER EVERY
YEAR**



This is the 25th year that we have been selling merchandise that we import, manufacture and distribute to the Purchasing Departments of leading industrial organizations throughout the country. Most of the principal purchasing agents throughout the country have copies of our catalog. We shall be pleased to receive the names of those who do not have such copies in order that we may send them a copy of our forthcoming catalog when it is issued.

We specialize in diamonds, watches, jewelry, silverware, clocks, electrical appliances, leather goods, gift merchandise, etc.

WE SHALL BE PLEASED TO SEE YOU AT THE INFORMASHOW, AT PITTSBURGH.

BOOTH 178

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DIAMOND IMPORTERS - WHOLESALE JEWELLERS
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ALBANY - BUFFALO - HARTFORD - PHILADELPHIA

AMONG THE ASSOCIATIONS

APRIL 1

San Francisco—Luncheon meeting of the **Northern California Association**, at the Palace Hotel. Speaker: Parke N. Waight, Los Angeles industrialist, "Pertinent Aspects of the Sit-Down Strike."

APRIL 6

Oakland—Luncheon meeting of the **East Bay Group, Northern California Association**, at the Lake Merritt Hotel. Speaker: Harold Cozens, Assistant Principal of the University High School, "Snakes."

APRIL 6-7

Milwaukee—Third Industrial Products Exhibit and meeting of the **Milwaukee Association**, at the Hotel Schroeder. More than a hundred manufacturers and distributors of industrial products were represented in the exhibit with varied and informative displays. Banquet meeting on Wednesday evening. Speakers: Dr. John L. Davis, humorist, philosopher and orator, and George A. Neesham of Chicago, Vice President of District No. 3, N.A.P.A.

APRIL 8

Philadelphia—Meeting of the **Philadelphia Association**, at the Bellevue-Stratford Hotel. Speaker: Dr. Ivor Griffith, Director of Research, John B. Stetson Co., and Assistant Dean, Philadelphia College of Pharmacy and Science, "The Truth about Tobacco."

Springfield—Past Presidents' Night meeting of the **Western Massachusetts Association**, at the Highland Hotel. Guests of honor included fifteen past presidents of the association, who spoke briefly on the activities of the group from its organization down to the present time. Motion picture, "The San Francisco-Oakland Bay Bridge," presented through courtesy of the American Steel & Wire Co. Officers for 1937-1938 were elected, as follows: *President*, Joseph C. Drennan of United American Bosch Corporation; *Vice President*, Frank E. Phillips of Chapman Valve Mfg. Co.; *Secretary*, William E. Case of Perkins Machine & Gear Co.; *Treasurer*, Stephen J. Kennedy of Springfield Gaslight Co.

Dayton—Meeting of the **Dayton Association**, at the Engineers Club. Speaker: Vice President R. C. Todd of the American Rolling Mill Co., "The History of Steel Making."

Duluth—Annual meeting of the **Twin Ports Association**, at the Spalding Hotel. The following officers for 1937-1938 were elected: *President*, David A.

Bruneau; *Vice President*, Philip G. Bourne; *Secretary-Treasurer*, E. R. Hjerpe.

Seattle—Roy C. Hull of the DuPont Powder Co. was elected president of the **Washington Association** for 1937-1938. Other new officers include: *Vice Presidents*, Frank A. Carson and Athol Baker; *Secretary*, George S. Drury; *Treasurer*, Carroll Holloway; *National Director*, George P. Locker, retiring president.

Chicago—Annual meeting of the **Chicago Association**, at the Hotel Sherman. Speaker: Edward T. Gushée of the Detroit Edison Co., "Teamwork in Purchasing." The following officers were elected for 1937-1938: *President*, Ray W. Morrill of Bowman Dairy Co.; *Vice Presidents*, G. R. Zeiss of The Wahl Co., and A. V. Pleasance of Montgomery Ward & Co.; *Secretary*, F. J. Heaslip of Fairbanks, Morse & Co.; *Treasurer*, George W. Simons of Darling & Co.

San Francisco—Luncheon meeting of the **Northern California Association**, at the Palace Hotel. Sound motion picture, "California Highways," presented through courtesy of the State Highway Department.

APRIL 10

Grand Rapids—Meeting of District Council No. 4, N.A.P.A., at the Pantlind Hotel. F. H. Missig of Aluminum Co. of America, Detroit, was chosen as national vice president for 1937-1938, succeeding A. J. Mitchell of Grand Rapids.

APRIL 12

New Orleans—Dinner meeting of the **New Orleans Association**, at D. H. Holmes Co. restaurant. Officers for 1937-1938 as announced in this column last month were elected.

Columbus—Meeting of the **Columbus Association**, at the Columbus Athletic Club. Speaker: Prof. Clifford James, Department of Economics, Ohio State University, "Price Trends."

Boston—Meeting of the **New England Association**, at Schrafft's. Speaker: Prof. Howard T. Lewis of Harvard Graduate School of Business Administration, "Implications of Industrial Purchasing." F. A. Hayes of American Hide & Leather Co. led the discussion on a case study on boiler compounds at the afternoon conference. The following slate of officers has been nominated for 1937-1938, to be voted on at the May meeting: *President*, Vincent de P. Goubeau of United Fruit Co.; *Vice President*, F. Albert Hayes of American Hide & Leather Co.; *Treasurer*, William Seldon of W. F. Schrafft & Sons Corp.; *National Director*, Charles L. Sheldon of

Hood Rubber Co.; *Directors*, Daniel G. Donovan of Pepperell Mfg. Co., J. Frank Dorney of Walworth Co.; Wyman S. Randall of Rust Craft Publishers, and Francis H. Jones of Graton & Knight Co.

APRIL 13

Cincinnati—Meeting of the Cincinnati Association, at the Gibson Hotel. Speakers: M. J. Detmer of National Carloading Corp., "Traffic Problems—Interstate and Intra-state," and Robert G. McIntosh, attorney and news editor, "The Robinson-Patman Act." A period of open discussion followed the presentation of these papers. Candidates for trustees of the association for the coming year were introduced at the meeting.

Bartlesville—Open meeting of the Tulsa Association, at the Hillcrest Country Club. Talking picture on the scenic beauties of Oklahoma, presented through courtesy of the Phillips Petroleum Co. The meeting was preceded by an afternoon visit to Woolaroc Ranch.

Moline—Dinner meeting of the Tri-City Association, at the LeClaire Hotel. Speaker: A. J. Christensen, manager of the traffic bureau, Moline Association of Commerce, "Relationship of Traffic and Purchasing."

New York—Meeting of the Metropolitan Purchasers' Assistants Club, at the Hotel Brittany. Speaker: George M. Tisdale, Director of Purchases, U. S. Rubber Products, and Vice President, N.A.P.A., "Why a Purchasing Department?"

APRIL 14

Kansas City—Annual products exhibit and "Executives' Night" meeting of the Kansas City Association, at the Hotel President.

Minneapolis—Dinner meeting of the Twin Cities Association, at the Hotel Radisson. Speaker: Frederick A. Anderson, Director of Social Service, Twin City Rapid Transit Lines, "The Youth Problem."

Buffalo—Meeting of the Buffalo Association. Speaker: H. B. Harrington, attorney, "The Supreme Court and the Constitution."

Erie—Meeting of the Erie Association, at Johnny Knoll's Tavern. Speaker: Dr. Andrews Triche of Pennsylvania State College, "Industrial Relations." John W. Cooke, first president of the association, was elected to honorary membership.

APRIL 14-15

St. Louis—Seventh annual exhibit of the products of member firms, sponsored by the St. Louis Association, at the Jefferson Hotel. Wednesday luncheon

DEPENDABLE *Rag-Content* BRISTOLS

..... DECISION INDEX

**25%
Rag**

A strong, sturdy Index for general utility use. An Index that will take fine pen writing—stand erasures and repeated handling—without getting dog-eared. A quality Bristol at low cost.

..... ACADEMY INDEX

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Where greater strength and durability is required, no other Bristol can match this tough, durable sheet. A fine rag-content Bristol that will stand the gaff of hard usage. The ideal Bristol to use where stamina is required.

- These Bristols are made in a Mill that has been famous for its fine quality rag-content papers since 1866.

USE THESE QUALITY BRISTOLS FOR PERFECT SATISFACTION. WE'LL BE GLAD TO SEND YOU SAMPLES.

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Test it! And you will
Specify it!

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The Nation's Business Paper

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meeting—held jointly with the Sales Managers Bureau of the St. Louis Chamber of Commerce—Speaker: De Loss Walker, associate editor of *Liberty* magazine. Thursday luncheon meeting—five minute talks by Norman N. Gould, Purchasing Agent of Aluminum Ore Co., East St. Louis; W. L. James, Purchasing Agent of Stanolind Oil & Gas Co., Tulsa; Edwin G. Berger, St. Louis manager of Miller-Bryant-Pierce Co.; and Harold D. Duffy, General Sales Manager of S. G. Adams Co. Thursday banquet meeting—Toastmaster, Lee J. Bussman of Bussman Mfg. Co. Speaker: Phil S. Hanna, editor of *Chicago Journal of Commerce and La Salle Street Journal*, "The Business Outlook Today."

APRIL 15

Pittsburgh—Annual banquet of the Pittsburgh Chapter, Institute of Scrap Iron and Steel, at the William Penn Hotel. Members of the **Pittsburgh Association** were invited as guests of the chapter.

Schenectady—Meeting of the **Eastern New York Association**, at the Van Curler Hotel. Speaker: George A. Tisdale, Director of Purchases for U. S. Rubber Products, New York City, and Vice President, District 8, N.A.P.A.

Oakland—Dinner meeting of the **Northern California Association**, at the Athens Athletic Club. Speakers: J. Fred Misphey, State Purchasing Agent, "Latest Phases of Legislation Affecting Purchasing," and A. F. Bonnalie, technical adviser of United Air Lines, with sound motion picture, "The Mainliner."

Los Angeles—Tenth annual industrial exposition and banquet, sponsored by the **Los Angeles Association** together with the Sales Managers' Association of Los Angeles, the Optimist Club, and the Chamber of Commerce, at the Jonathan Club. Speaker: Byron C. Hanna, President of the Chamber of Commerce, "The Path of Progress."

APRIL 17

New Orleans—Installation of the new officers of the **New Orleans Association**, followed by a costume dance.

Huntington W. Va.—Meeting of the **Tri-State Association**, at the Prichard Hotel, in connection with the meeting of **District Council No. 6, N.A.P.A.** Guests of honor included District Vice President A. J. Goetz of Monroe, Mich., and Vice President-elect J. E. O'Brien of Cleveland.

Pittsburgh—Meeting of the **Pittsburgh Association**, at the William Penn Hotel. Speaker: C. William Duncan, Columnist of the *Philadelphia Evening Public Ledger*, "Close-ups of Famous People." Officers for 1937-1938 were elected as

OPEN-HEARTH

COLD FINISHED SCREW STOCK

With production running at a high rate in every industry, mechanisms are forced to utmost speeds—and abnormal loads are put upon machine parts. The resulting failures and costly interruptions are bringing the attention of purchasing departments to the value of Open Hearth Screw Stock.

Your inquiries are invited on these steels.

SAE 1115
SAE 1120
SAE X-1314
SAE X-1315
SAE X-1335

As developed and produced under the close control of B & L manufacturing standards, this quality grade of Screw Steel answers difficult machining problems.

Its good response to carburizing and surface hardening treatments . . . its satisfactory core condition . . . and mechanical dependability for such operations as bending, swaging and minor deformation, as nibbing and broaching . . . are some of the advantages of specifying B & L Open Hearth Screw Stock.

Cold Drawn Bars • Ground Shafting • Ultra-Cut Steel • Special Sections Alloy Steels



Shoulder Adjusting Screw fabricated from SAE X-1315, resulting in highly satisfactory tool box life, also with die and form. This part featured by good finish and smooth threads.

BLISS & LAUGHLIN, INC.

HARVEY, ILL.

Sales Offices in all Principal Cities

BUFFALO, N.Y.

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for All
**BIG
JOBS**

PUT them up to Smith.
Benefit by our ability to
weld either to your designs
and specifications or to
those we'll prepare!
S. MORGAN SMITH COMPANY,
York, Pa.

*Write for
Bulletin*



WELDING *by* SMITH

ELECTRO
COATED WITH
**BRASS
NICKEL
ZINC
COPPER**
OR PLAIN
BRIGHT FINISH

Thomas Strip
COLD ROLLED
STRIP STEEL

**CHECK THE SAVING IN METAL COST
TEST THE FABRICATION ADVANTAGES
KNOW THE SERVICE DEPENDABILITY
PROFIT BY MAKING YOUR PRODUCT
FROM THOMASTRIP**

Many fabricators have found the solution to their product cost, fabrication and service problems in Thomastrip. A Thomas representative will gladly assist you in the application of Thomastrip to your requirements. It will pay you to request test samples and complete information.

THOMAS STEEL CO., WARREN, OHIO
SPECIALIZED PRODUCERS OF COLD
ROLLED STRIP STEEL

follows: *President*, J. H. James of Pittsburgh & Lake Erie R. R. Co.; *Vice President*, J. M. Knowles of Consolidation Coal Co.; *Secretary*, C. H. Rindfuss of Pittsburgh Screw & Bolt Corp.; *Treasurer*, E. C. Buerkle of National Bearing Metals Corp.; *National Director*, T. D. Jolly of Aluminum Company of America.

Oakland—Luncheon meeting of the **East Bay Group, Northern California Association**, at the Lake Merritt Hotel. Sound motion picture, "Steel," presented through courtesy of the Columbia Steel Co.

New York—Meeting of the **New York Association**, at the Builders Exchange Club. Speaker: C. Pascarella, traffic manager for Francis H. Leggett & Co., "Shipping Containers."

APRIL 21

Detroit—Meeting of the **Detroit Association**, at Webster Hall. Officers are to be elected at the May meeting from the following slate: *President*, Wm. G. Boley, Detroit City Gas Co.; *1st Vice President*, A. W. Taylor of Rotary Electric Steel Co.; *2nd Vice President*, Henry George of General Motors Corp.; *Treasurer*, R. R. Barnard of Calvert Lithographing Co., E. L. Coleman of City of Dearborn, and R. M. Parkin of The Charles A. Strelinger Co.

San Francisco—"Purchasing Agents' Night" of the American Society of Safety Engineers, at the P. G. & E. Auditorium. Speakers: R. W. Peterson, Purchasing Agent of Durkee Famous Foods, "How Can the Purchasing and Safety Departments Best Cooperate in Abolishing Accidents?"; A. F. Riemke, Safety Engineer of California & Hawaiian Sugar Refining Corp., "Saving Lives and Money by Using Proper Safety Equipment"; Edward M. Welch, Purchasing Agent of American Manganese Steel Co., "The Purchasing Agent's Responsibility when Purchasing Safety Equipment."

APRIL 22

San Francisco—Luncheon meeting and "Business Show Day" of the **Northern California Association**. Speaker: H. Leland Weber of Fibreboard Products Inc., "What a Salesman Should Tell a Purchasing Agent."

Toledo—Meeting of the **Toledo Association**, at the Waldorf Hotel. Speaker: George A. Renard of New York City, Secretary of the N.A.P.A.

Kalamazoo—Meeting of the **Kalamazoo Association**. Speaker: Roger Egan of Chicago, Western representative of the Bulkley Denton Pulp Co., "Using the Dow Theory as a Means of Forecasting Business Conditions."

APRIL 23-24-25

Portland—Annual conference of northwestern purchasing agents, sponsored by the **Oregon Association**, at the Benson Hotel. Jack Mayer of W. P. Fuller & Co., president of the Oregon Association, presided. A meeting of **District Council No. 1, N.A.P.A.**, was held in connection with the conference, and delegates were present from Portland, Seattle, Vancouver, San Francisco, Salt Lake City, and Los Angeles. Discussion of the Robinson-Patman Act and its effect on purchasing. Discussion led by Harold Cake of J. E. Haseltine Co., "Does Selling Experience Make a Better Purchasing Agent?" Summary of the business outlook by E. B. MacNaughton of First National Bank, E. C. Sammons of Iron Fireman Mfg. Co., and Paul B. McKee of Portland Gas & Coke Co. Banquet and ball.

APRIL 23

Rochester—Annual meeting and dinner dance of the **Rochester Association**, at the Rochester Club. The following officers for 1937-1938 were elected: *President*, E. B. Robinson of Rochester Gas & Electric Corp.; *Vice Presidents*, Burt Ewell of Rochester Lead Works, and Roman Taylert of Richardson Corp.; *Secretary*, John T. Harbison of Hawkeye Works, Eastman Kodak Co.; *Treasurer*, Leonard Moore of Defender Photo Supply Co. Homer Braunschweig of Rochester Envelope Co., retiring president, was named a director for the coming year, as were Harry Cooper, J. McLaughlin, and Prentice Lapp.

Dallas—Meeting of the **Dallas Association**, at Stoneleigh Court. Officers for 1937-1938 were elected as follows: *President*, John C. Tanner of Austin Bridge Co.; *Vice Presidents*, M. H. West and J. E. Jonsson; *Secretary*, Blan P. Dysart; *Treasurer*, L. B. Mitchell; *National Director*, William Wood.

APRIL 26

Providence—Meeting of the **Rhode Island Association**, at the Biltmore Hotel. Debate: "Resolved, that Congress should be empowered to fix minimum wages and maximum hours for industry," by teams representing Rhode Island State College and Brown University. Officers for 1937-1938 were elected as follows: *President*, Francis G. Martineau of Slatersville Finishing Co.; *Vice President*, G. G. Kobler; *Secretary*, Arnot Hirst; *Treasurer*, J. Walter Mills; *National Director*, Benjamin Baylis; *Directors*, R. W. Dixon, F. A. Page, and M. E. Wallace.

Easton—Meeting of the **Lehigh Valley Association**, at the Hotel Easton. Speaker: Dr. N. E. Woldman of Eclipse Aviation Corp., "The Proper Use of Tool Steel."

Continued on page 77

MEN AT WORK

need plenty of good drinking water

WHEREVER men work, there is need for properly cooled drinking water. Water is one of those small but important things that make for improved employee relations and a contented working force. Increases efficiency, too.

Your plant can enjoy the last word in modern drinking water facilities easily and inexpensively... with Cordley Electric Water Coolers. Look into the water question today. Is your equipment modern? Sanitary? Conveniently placed to save your employees time and steps?

With Cordley Electric Coolers you are sure of controlled temperatures—always just right for the place and purpose. Efficient, simple cooling mechanism; built by an organization making water coolers since 1889.

Nationally known firms that have adopted Cordley Coolers include Walter Baker Chocolate • Otis Elevator • American Optical Company • Remington Rand • Sears Roebuck • Pacific Mills • Sweet Orr Overalls and many others.

CORDLEY & HAYES
135 Hudson St., New York City



Specification of Bond Papers Based on Use

HERE IS A SIMPLE table developed in a purchasing office, showing the different types of paper appropriate to use for various office forms. It facilitates the selection of qualities to meet use requirements and, at the same time, indicates the relative advantages of cost and service.

While it has proved to be a very useful guide over a considerable period of time, it should be accompanied by a word of caution and explanation, for the specifications are not as simple as they appear. The types shown are really not specifications, but merely classifications which have been standardized. To call for a "No. 1 Sulphite" for instance, is a specification only in a very general way. There are many kinds of "No. 1"—in fact, about as many as there are manufacturers. It has been more or less a practice in the trade to refer to any water-marked sulphite sheet as "No. 1," but such a designation is not accurate. It would be possible under such a system, shall we say, for a "No. 3" to become "No. 1" merely by the expedient of having a water-mark run into it during manufacture.

Four main classifications of quality requirements, and four corresponding brackets of quality standards, provide a simple and effective working guide to economical selection of suitable paper grades for various types of use

A. L. McMILLAN

New York

The logical and reasonable solution, therefore, is to decide upon certain makes of paper, and to specify these makes at the time of writing the request for quotation and the order. That applies to rag content papers as well as sulphites, for the quality of rag used has a determining effect on the final product. The specification of paper on the basis of trade mark may not appeal to the buyer who glories in buying unbranded goods free from promotional ballyhoo, but this is one of the materials where the advertised reputation of the manufacturer is clearly

of real value to the user of his product, and is worth paying for in the price of the material.

Nothing is said in this chart about substance, or weight, of paper. Substance should be considered a dimension rather than a quality. After we have determined the quality of bond for our use, we can then decide upon substance according to the size of page, number of copies, convenience of handling, or any other pertinent factors.

The chart reduces the various grades of paper to just four groups, or brackets. There would seem to

Classification of Papers for Form Use				
Bracket	Paper Quality	Comparative Cost per Lb.	Basic Use	For Such Uses as
I	100% Rag Alternative: 75% Rag	40¢-60¢ 30¢-40¢	For hardest use requiring maximum resistance to handling, ageing, folding, etc.; papers which must last indefinitely.	Certificates, general ledger and other general accounting books, corporate records and minute books, executive letterheads, personnel records, etc.
II	50% Rag Alternative: 25% Rag	25¢-35¢ 15¢-25¢	For hard use as above, but where economy of cost can be allowed; forms that are handled a great deal or that may later appear in Court.	Vouchers and voucher details, detail ledgers and records, budgets, manufacturing and operating cost statements, reports of record, audits, etc.
III	No. 1 Sulphite Alternative: No. 2 Sulphite	14¢-15¢ 11¢-12¢	For ordinary use where form is used and then filed; where all handling is usually finished within 30 days and files are seldom disturbed thereafter.	Daily operating reports and control statements, intra-company correspondence; the bulk of routine forms.
IV	No. 3 Sulphite Alternative: No. 4 Sulphite	9¢-10¢ 8¢- 9¢	For temporary uses and where ultimate and entire purpose is fulfilled within a year and the form then destroyed.	Carbon copies of daily reports, etc., transmittals and the like, where basic function is quickly finished.

be little need for more than four types of paper for the ordinary applications. Judiciously selected, these four types would serve all usual applications satisfactorily, and additional flexibility is obtained by citing an alternative quality under each of the classifications, which will permit some economy of cost when a slight sacrifice of quality is permissible. However, there should not be any alternation between the four major groups themselves.

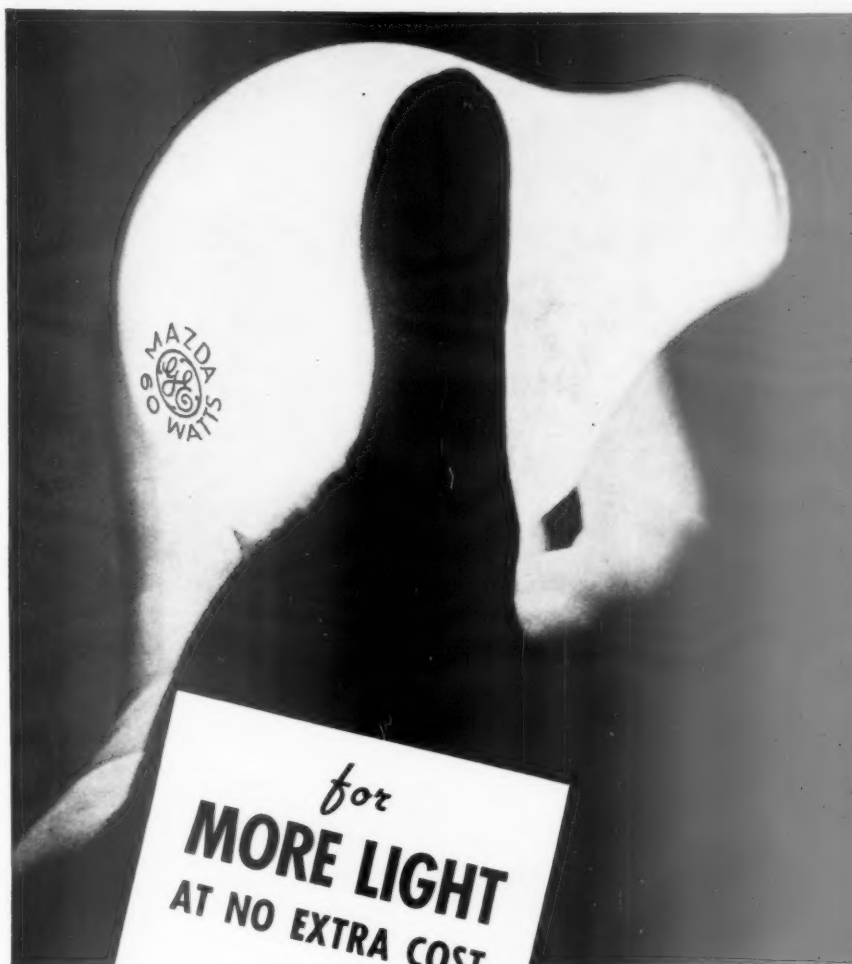
The prices noted in the chart are only for comparative purposes, based upon present case lot prices. It must further be emphasized that these costs are for the paper alone; printing service must be added to this to make up the ultimate cost of the finished form. It is poor economy to invest a lot of printing service on a poor quality sheet just to save a few cents on the few pounds of paper stock used on the job.

In placing the order, the grade of paper should be selected to match the use indicated; determine the substance weight and colors as needed for that application; and specify to the printer the brand or the manufacturer whose paper has won your confidence within that classification. Such a policy does result in economy of costs in the broad sense of avoiding the waste incident to using a paper that is either too good or not good enough for the purpose. In addition, you will have definite quality standards for your forms, better records, and more satisfied users.

JAMES J. MOORE has resigned as purchasing agent for the Rhode Island State Unemployment Relief Commission. Purchases for the division will hereafter be handled under the direction of State Purchasing Agent P. J. SULLIVAN.


WILLARD V. PAPE has been named to the newly created position of City Purchasing Agent at Seattle, and will also serve as a member of the Standardization Committee.

MAY 1937



change to the new, brighter 1937 MAZDA LAMPS made by G-E

GENERAL ELECTRIC has spent millions of dollars in improving the quality of MAZDA lamps . . . giving the user more light for his money year after year. All sizes of MAZDA lamps made by G-E have been improved and prices have been reduced again and again. For example, the 60-watt lamp of today gives 24% more light and costs 50% less than it did in 1927.

In the past year alone, General Electric has made notable improvements in MAZDA lamps . . . improvements which provide more light at no extra cost. The trade-mark  on the end of a MAZDA lamp assures you of full lighting value for your money.

General Electric Company, Dept. 166, Nela Park, Cleveland, Ohio.



USE THE G-E LIGHT METER TO MEASURE YOUR LIGHTING

The General Electric Light Meter measures light as simply as a thermometer measures temperature. It tells whether the various departments in your plant are getting enough light for safe, easy seeing. It is helpful in checking from time to time to see that this amount is being maintained. Every executive should have one. Costs only \$11.50.

GENERAL ELECTRIC MAZDA LAMPS



For PRODUCTION INSPECTION

Starrett Dial Indicators are made in a complete range of standard sizes and dial calibrations or special indicators can be developed to suit your gaging operations. The second edition of the Starrett Dial Indicator Catalog P just off the press illustrates and describes the entire line of STARRETT and LAST WORD Indicators. Write for a copy.

THE L. S. STARRETT CO., ATHOL, MASS., U.S.A.

World's Greatest Toolmakers—Manufacturers of Hacksaws Unexcelled—Steel Tapes, Standard for Accuracy

Standardize on
STARRETT TOOLS
BUY THROUGH YOUR DISTRIBUTOR

NEW YORK CITY MUNICIPAL CIVIL SERVICE COMMISSION

NOTICE OF EXAMINATION

BUYER, DRUGS AND CHEMICALS

Salary: \$3,500 to \$4,000 per annum; pension; fair sick leave.

Vacancies: One; one appointment made from last list at \$3,500.

Ages: 30 through 45, on May 14, 1937.

Applications: Received 9 A.M., Thursday, April 15, to 4 P.M., Friday, May 14, 1937, Room 1400, Municipal Building, Manhattan.

Save time for yourself by using ordinary mail to request application and to return filled out application instead of coming yourself to the Application Bureau. If you write for application blank send self-addressed, 9-inch envelope with three cents postage, for mailing you the application. Application by mail, postage fully prepaid, must be received not later than 4 P.M., May 14, 1937.

Caution—Applications mailed to the Commission with insufficient postage will be refused. Applications from Manhattan and Bronx require two cents an ounce; from other places three cents an ounce.

Duties: To receive and review specifications; investigate sources of supply; interview dealers and agents; receive requisitions and award orders for the purchase of drugs, medicines, sundries and chemicals including dry and liquid cleaning compounds.

Requirements: Five years' satisfactory successful experience in purchasing drugs and chemicals for a large drug store or chain of drug stores or wholesale drug or chemical house or manufacturer using large quantities of drugs and chemicals, or a combination of the foregoing; and a degree in pharmacy or chemistry from an institution accredited by the University of the State of New York. Special credit will be allowed for advanced courses in chemistry and biology. Candidates must be registered pharmacists in the State of New York, prior to certification, and must have a knowledge of methods of production and uses of drugs and chemicals. They must be familiar with accounting methods and office procedures and other factors of business administration as related to purchasing. They must be thoroughly familiar with the value and quality of drugs and chemicals and present day market trends.

Subjects and Weights: Experience, weight 4, 75 per cent required; technical, weight 4, 75 per cent required; oral, weight 2, 75 per cent required.

Experience will be rated after an oral interview upon the extent to which such experience has fitted the candidate to perform the duties of the position.

An oral examination will be given to determine the personal qualifications of the candidate and will be based on the following factors: Appearance, manner, speech, judgment. 60 per cent required on each of these factors.

Medical and physical requirements, as posted on Commission's bulletin board, must be met. Candidates may be rejected for any deficiency, abnormality or disease that tends to impair health or usefulness, such as defective vision,

heart and lung diseases, uncontrolled hernia, paralysis and defective hearing.

Fee: \$3.50, to be paid five days prior to first test but after receipt of notice of examination date. Only one fee, payable by money order or cash, at Room 1438, until 4 P.M., Saturday 12 noon, where official receipt will be given. When sending fee by mail, state application number and enclose self-addressed envelope, full postage prepaid. No fee for application. No refund of fee.

MUNICIPAL CIVIL SERVICE COMMISSION, JAMES E. FINEGAN, President; FERDINAND Q. MORTON and PAUL J. KERN, Commissioners.

WILLIAM H. ALLEN, Secretary.

Convention Committees

General Committee

CHAIRMAN: Irvin E. Walton, Heppenstall Co., Pittsburgh, Pa.

VICE CHAIRMAN: G. Walter Sanborn, United Engineering & Foundry Co., Pittsburgh, Pa.

TREASURER: E. C. Buerkle, National Bearing Metals Corp., Pittsburgh, Pa.

PURCHASING AGENT: Charles E. Briner, The McKay Co., Pittsburgh, Pa.

SECRETARY: J. H. Phillips, Pittsburgh Steel Co., Pittsburgh, Pa.

AUTOMOBILES: John T. Bryant, Mellon National Bank, Pittsburgh, Pa.

ENTERTAINMENT AND GOLF: Royce D. King, Koppers Co., Pittsburgh, Pa.

HOTELS: Clarence H. Rindfuss, Pittsburgh Screw & Bolt Corp., Pittsburgh, Pa.

INFORM-A-SHOW: W. E. Bittner, Diamond Alkali Co., Pittsburgh, Pa.

PLANT VISITATION: R. W. Mackensen, Pittsburgh Coal Co., Pittsburgh, Pa.

PROGRAM: Thomas D. Jolly, Aluminum Co. of America, Pittsburgh, Pa.

PUBLICITY: Walter Brubach, Gulf Oil Corp., Pittsburgh, Pa.

RECEPTION: Frank H. MacKnight, Westinghouse Air Brake Co., Pittsburgh, Pa.

REGISTRATION: H. Voight Natcher, M. B. Suydam Co., Pittsburgh, Pa.

SERVICE: A. Norval Johnston, Jones & Laughlin Steel Corp., Pittsburgh, Pa.

TRANSPORTATION: J. H. James, The Pittsburgh & Lake Erie R. R. Co., Pittsburgh, Pa.

PURCHASING



I. E. WALTON

General Chairman of the 1937 Convention

Credentials Committee

CHAIRMAN: H. E. Pape, Stanley Works, American Tube & Stamping Plant, Bridgeport, Conn.
 R. W. Appleton, Morse Chain Co., Ithaca, N. Y.
 Ralph N. Jacobson, Federated Metals Division, American Smelting & Refining Co., San Francisco, Cal.
 H. H. Kuehlke, Richards & Conover Hardware Co., Kansas City, Mo.
 P. G. Maguire, Pennsylvania Sugar Co., Philadelphia, Pa.
 J. E. O'Brien, The Fanner Mfg. Co., Cleveland, Ohio.
 Joe P. Penick, The First National Bank of Birmingham, Birmingham, Ala.
 C. M. Taylor, Indian Territory Illuminating Oil Co., Bartlesville, Okla.

Resolutions Committee

CHAIRMAN: Erwin H. Doht, Malinckrodt Chemical Works, St. Louis, Mo.
 H. D. Caplan, Building Products, Ltd., Montreal, Canada.
 H. A. Frank, Sterling Wheelbarrow Co., Milwaukee, Wis.
 J. W. Harrington, Greenfield Tap & Die Corp., Greenfield, Mass.
 Roy C. Hull, E. I. du Pont de Nemours & Co., Dupont, Wash.
 O. D. Story, Shell Petroleum Corp., Houston, Texas.

Attendance Cup Committee

CHAIRMAN: R. H. Garrot, United Fruit Co., New Orleans, La.
 B. L. Gunn, Tintic Standard Mining Co., Salt Lake City, Utah.
 John T. Harbison, Eastman Kodak Co., Hawkeye Works, Rochester, N. Y.
 P. J. Keith, W. J. Fuller & Co., Los Angeles, Cal.

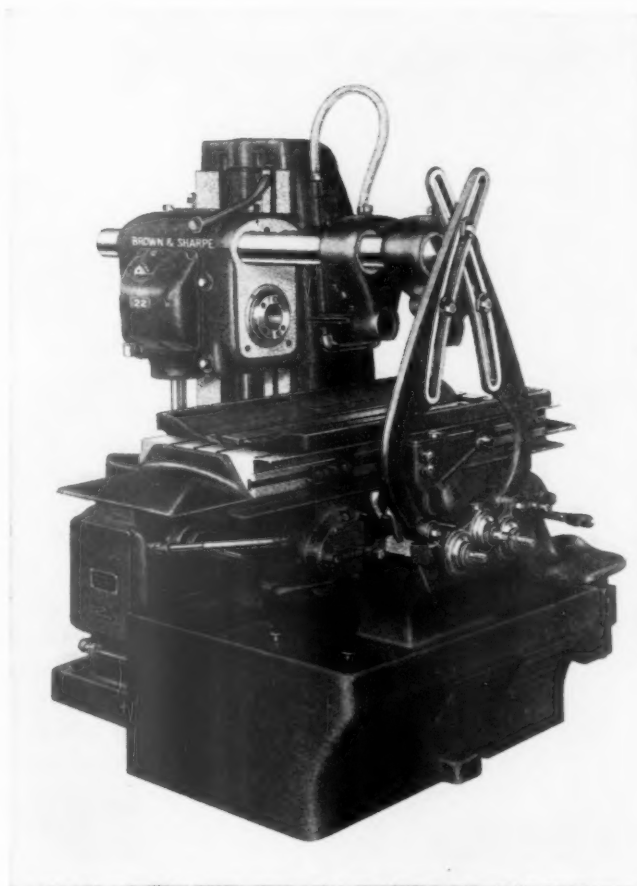
Prize Paper Contest Committee of Award

CHAIRMAN: Sumner E. Keyes, Edison Electric Illuminating Co., Boston, Mass.

Francis G. Martineau, Slatersville Finishing Co., Slatersville, R. I.
 George W. Mosher, White & Wyckoff Mfg. Co., Holyoke, Mass.

Shipman Medal Committee

CHAIRMAN: C. G. Bunnell, Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa.
 John K. Conant, General Printing Ink Corp., New York, N. Y.
 Walter R. Heyman, Oklahoma Gas & Electric Co., Oklahoma City, Okla.



No. 22
A PROFITABLE
COMBINATION
of Ease of Control
and
High Productive
Capacity



- - Ask for specifications of this cost-saving No. 22 Plain Milling Machine. Brown & Sharpe Mfg. Co., Providence, R. I.

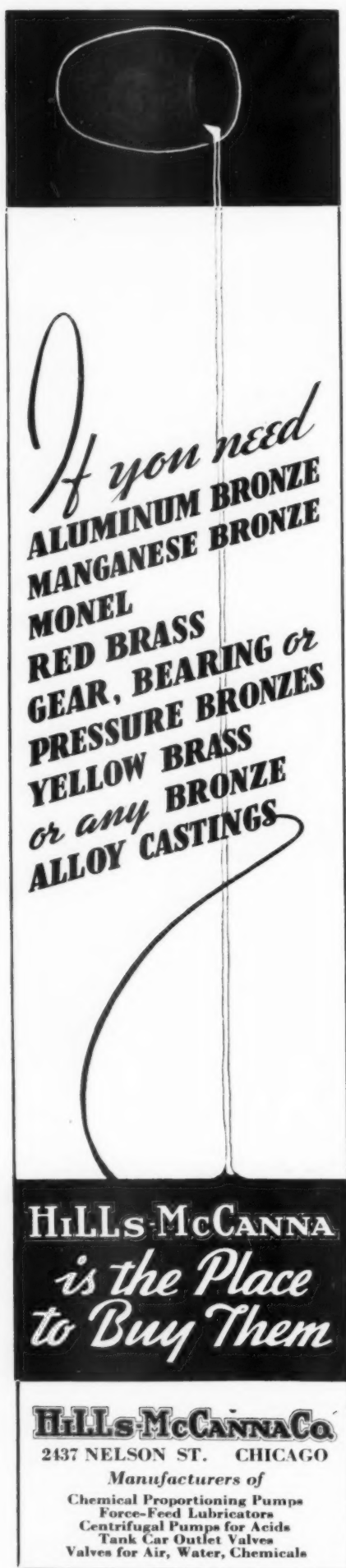
Unique in giving the Flexibility of Control heretofore provided in the "Column and Knee" Design. (Quick set-ups—Reduction in non-productive time)

Combined with the production advantages of the "Bed Type" milling machine. (Unusual rigidity—High production with accuracy)

... An Economical Investment for both Short and Long run jobs.

MAY 1937

BROWN & SHARPE



If you need

**ALUMINUM BRONZE
MANGANESE BRONZE
MONEL
RED BRASS
GEAR, BEARING or
PRESSURE BRONZES
YELLOW BRASS
or any BRONZE
ALLOY CASTINGS**

HILLS McCANNA
*is the Place
to Buy Them*

HILLS McCANNA Co.
2437 NELSON ST. CHICAGO
Manufacturers of
Chemical Proportioning Pumps
Force-Feed Lubricators
Centrifugal Pumps for Acids
Tank Car Outlet Valves
Valves for Air, Water, Chemicals

When N.A.P.A. Came to Pittsburgh in 1917

..... forty-seven percent of the national membership attended the convention, but the William Penn Hotel was not taxed to accommodate these 205 registered delegates.

..... the national treasurer, E. H. Ridgeway, reported total disbursements for the year amounting to \$560.84, which included one item of a \$5 refund of dues.

..... the theater party attraction was John Drew in "The Gay Lord Quex" at the Nixon.

..... among the speakers announced for the banquet session (though subsequently a substitute was provided) was the Hon. Daniel C. Roper, then vice chairman of the U. S. Tariff Commission.

..... "Cooperation between Salesmen and Purchasing Agents" was already a hot topic for discussion. The speaker: N. O. Aeby, then purchasing agent for the Jeffrey Mfg. Co. of Columbus. The subject has not yet been exhausted.

..... patriotic fervor was running high. Feature of the banquet session: Miss Liberty, aged 5, rising from out a basket of roses and singing "Your Country and My Country." The favors were in the form of knapsacks.

..... many of the delegates were obliged to leave the sessions early because of urgent business in Washington regarding wartime regulations on shipments, priority lists, essential materials, etc.

..... 600,000 traveling salesmen had just pledged themselves to a meatless, wheatless meal a day—a custom which some of them revived for less patriotic reasons around 1932. The sales diet, however, had

no great effect on buyers' luncheon invitations, for 1917 was a sellers' year.

..... to conserve an essential war material, the government had just fixed the price in the highly competitive copper market, at 23½ cents a pound, which, it was estimated, would enable the majority of mines to operate at a fair profit.

..... cotton prices had gone above 30 cents a pound. Sellers were talking about \$75 a ton for pig iron, and the steel industry was perturbed by a Federal Trade Commission canvass regarding the advisability of abrogating existing contracts.

..... it was announced that the progressive Board of Aldermen at Milwaukee had suggested the revolutionary plan of providing for a salaried purchasing agent in the city's budget for the coming year.

..... New York and Detroit were in spirited competition for the 1918 convention, with the western city gaining the decision. Pittsburgh, however, retained the presidency as the late E. L. McGrew, of Standard Underground Cable Co., was drafted for a second term in the office

..... W. T. ("Pop") Hall, then purchasing agent for Brewster & Company, accepted his first national association office as treasurer for 1917-1918.

..... the association membership was doubled by the simple expedient of rewriting the constitution and by-laws to satisfy the objections of the local associations at Chicago, Philadelphia, St. Louis, and Cleveland, who promptly affiliated with N.A. P.A. and brought the roster of local groups up to ten.



MARATHON TYPEWRITER RIBBON A Columbia World-Champion!

ATTAINING unparalleled heights in long-distance typing performance, unparalleled typing beauty in correspondence and billing, Columbia MARATHON Typewriter Ribbons bring refreshing originality into an already over crowded field.

● Definitely concentrating upon the most important phases of typing, MARATHON silk ribbons possess a strength and toughness unattainable in cotton ribbons.

● Today the factors of performance, endurance and intelligence count for much in the making of a really different typewriter ribbon. Compare MARATHON with conventional ribbons. You will note a gratifying difference in quality, performance and manufacture.

COLUMBIA RIBBON & CARBON MANUFACTURING CO., Inc.

Main Office and Factory

Glen Cove, L. I., New York
BRANCHES

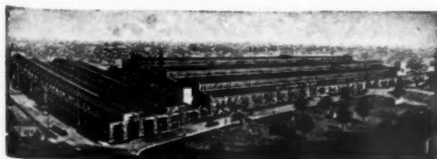
New York, Chicago, Philadelphia, Pittsburgh,
Cincinnati, Nashville, New Orleans,
Kansas City, Milwaukee,
Minneapolis

—also—

LONDON,
ENGLAND

MILAN,
ITALY

SYDNEY,
AUSTRALIA



..... the catalog standardization project was launched, under the leadership of W. L. Chandler, of Dodge Sales & Engineering Co., Mishawaka, Indiana. The program then included not only standard size, but standard cover colors to designate the year of issue, after the fashion of automobile license plates, so that the P.A. could tell at a glance whether he was reading the latest edition or one that might be out of date.

..... Dixon C. Williams, President of the Chicago Nipple Company, described "The Ideal Purchasing Agent" in a banquet address, as "a man of boundless energy and unflagging industry, commanding the absolute confidence of his employer or superior officer respected and recognized as supreme in his office broad-minded, broad-gauged, with big ideas, strength of character, and vision above the slightest deception a constant seeker of information self-contained and self-possessed polite and cordial a close student of human nature."

Obituary

ALEXANDER M. FAIRLAMB, 61, formerly purchasing agent and more recently assistant treasurer of the Air Reduction Sales Co., New York City, died April 4th at his home in Larchmont, N. Y.

WENDALL A. BROWN, assistant district purchasing agent for the American Steel & Wire Co., at Worcester, Mass., died April 6th at his home in that city after an illness of several months.

GEORGE M. STEELE, 47, for many years purchasing agent of the George C. Whitney Co., and prior to that purchasing agent for the John Sherman Co., died at Memorial Hospital, Worcester, Mass., April 14th, after a brief illness.

Here's a Fan that's really DIFFERENT!

*Keeps You Cool—
yet no risk of "Colds"!*



VICTOR NO-DRAFT FANS

SEE how the ribbons blow outward? That's the exclusive Victor Breeze-Spreader action diffusing instead of concentrating the air stream. That's why there are no drafts or blasts to cause disagreeable summer colds. Instead, uniform air circulation, satisfying heat relief with safety. The famous Ribbon Test proves it. Ask to see it demonstrated.

ALL SIZES—ALL TYPES A Model for Every Cooling Requirement

From the 8" DeLuxe, for bedroom or small office, to the super-powerful 28" Tornado air circulator. Victors are truly "The Finest Fans Ever Built." In performance, exclusive mechanical and convenience features, and long, trouble-free service life, they outclass the field.

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Don't buy a fan until you learn what you get in a Victor. New catalog tells the whole story. Mailed free on request. Write for your copy today.

VICTOR ELECTRIC PRODUCTS, INC.
751 Reading Road Cincinnati, Ohio

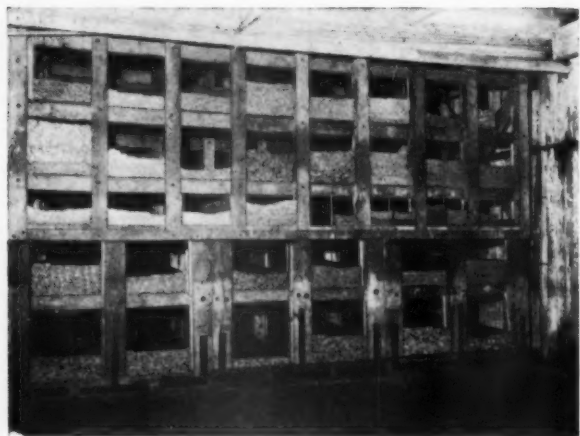
MAKERS OF VICTOR VENTILATING FANS



VICTOR TORNADO HIGH VELOCITY FANS

Low cost, high efficiency, commercial cooling. One Tornado replaces scattered installations of small fans.





Immediate Shipment!

Above and below are shown actual views taken in our Rod Stock Room showing a small part of our stock, - Round, Square and Hexagon in sizes from 1/16" to 3 1/2".

Bristol Brass Rod is made in uniform temper assuring smooth grain and finish plus additional die and tool life. This Rod is free-cutting thereby increasing production while edges and faces are held sharp and true and the finished product is clean and bright.

We also furnish a Special Bristol Rod for full knurling, free turning and swaging, also for welding, repairing and forging.

When you want Brass Rod that's **RIGHT** get in touch with our nearest branch office or write us direct.

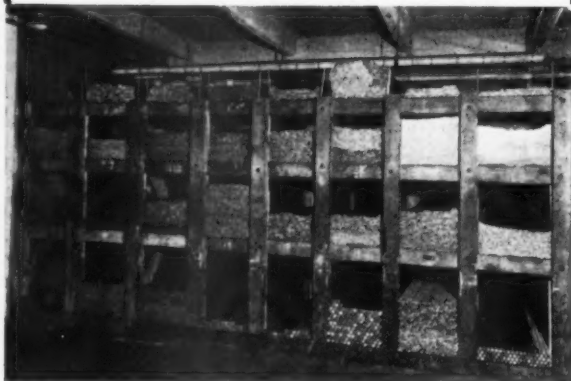
HOME OFFICE AND PLANT



The Bristol Brass Corp.
Bristol, Conn.

BRANCH SALES OFFICES

Providence - New York
Cleveland - Detroit - Chicago



Personals

C. D. YOUNG, Vice President in charge of purchases and stores, Pennsylvania Railroad, CHARLES E. SMITH, Vice President in charge of purchases for the New York, New Haven & Hartford R. R., G. O. BEALE, chief purchasing officer of the Chesapeake & Ohio, and F. S. AUSTIN, Assistant Purchasing Agent of the New York Central, were among the speakers at the "Purchases and Stores Night" of the New York Railroad Club, April 16th. Mr. Beale also spoke at a similar meeting of the Western Railway Club in Chicago, April 19th.

J. W. NICHOLSON, City Purchasing Agent at Milwaukee, addressed the Lions Club of that city May 10th, on "Centralized Purchasing for Municipalities."

M. N. HOKE, Purchasing Agent and director of the Connors Steel Co., Birmingham, has been named secretary of the company.

HENRY WALLACE, Purchasing Agent for Sonoma County, Cal., addressed the Sebastopol Chamber of Commerce April 21st, describing the duties and problems of his office.

JOHN C. LEWIS of Sparta, Hancock County, has been named State Supervisor of Purchases for Georgia, succeeding R. F. BURCH, who has been transferred to the Department of Natural Resources. O. G. GLOVER of Canton, who has been acting purchasing agent, has been named assistant to Mr. Lewis.

CAPT. J. A. SCHNEIDER, formerly chief clerk to the State Purchasing Agent of Alabama, has been appointed to a similar position with the Alabama Alcoholic Beverage Control Board.

J. M. SLAUGHTER has been appointed purchasing agent and manager for the new municipally owned filling station at Meridian, Miss.

Last call for the N.A.P.A. convention in Pittsburgh, May 24-27.

Mutually Agree



GENERAL MANAGERS and factory foremen enthusiastically agree on AJAX superiority in convenience, safety and economy.

AJAX, the original wedge-shaped cup, fits naturally and securely into the hand and is unusually comfortable to use. It is made of pure, tasteless paper, and is delivered from a dust-tight Dispenser, bottom first. No hand ever need touch the cup rim.

Its handsome Dispenser, of indestructible steel or Bakelite, lasts indefinitely. Loading is accomplished in a few seconds from a special-design carton holding 250 cups. Less frequent reloading is required.

AJAX service is economical in time and cost. Wall type Dispensers are compact and may be put up in the handiest places. Inverted type for water coolers also supplied—and a choice of colors in both, appropriate for office and factory use.

Write on your letterhead, for Free Cup Samples, in this handsome cigarette humidor for your desk—and supplier's name.



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270 Broadway, New York, N. Y.

221 No. LaSalle St., Chicago, Ill.

PACIFIC COAST ENVELOPE COMPANY, DIV.
416 Second St., San Francisco, Cal.

AJAX
Cups and Dispensers

Trade Literature

A revised edition of the Directory of New England Manufacturers has been issued by George D. Hall, Inc., 665 Boylston St., Boston, with the editorial cooperation of the New England Council. It provides a complete reference work covering 17,000 manufacturing plants in the New England territory, listing their products, capital, the location of plants and branch offices, names of principal officers, number of factory employees, etc. The usefulness of the book is enhanced by an alphabetical index to products and to brand names. Price \$15.00 per copy.

"Metal Statistics—1937" is the thirtieth annual edition of this compact summary of reliable figures on the production, consumption, and price movements of ferrous and non-ferrous metals. It also contains statistics on miscellaneous economic subjects of interest and value to members of the metal industries. Published by the American Metal Market, 111 John St., New York, N. Y. 572 pages, pocket size. Price \$2.00 per copy.

The Economy Engineering Co., 2658 W. Van Buren St., Chicago, is distributing a portfolio of twenty views showing the use of portable telescoping ladders in factories, department stores, banks, and public buildings, as a convenient and flexible piece of maintenance equipment.

The Gerrard Red Book of Carload Stowage is an attractive pictorial catalog showing improved methods of wire bracing and metal ties that prevent damage to heavy or light freight carloads of machinery, mixed merchandise, pipe, drums, sheet steel, crates of fruits and vegetables, and even glass milk bottles. Issued by the Gerrard Co., Inc., 2915 W. 47th St., Chicago.

"Heavy-Duty Floors with Incor 24-Hour Cement" is a 12-page illustrated booklet showing the results and methods of application of this quick-curing and rugged material, which can be used with a minimum of interruption to industrial processes. Issued by Lone Star Cement Co., 342 Madison Ave., New York City.

"A Plan for Modernization of Business Printing" is the title of a new folder prepared by International Paper Co., New York City. It includes a concise guide to paper selection; economy of standard sizes, with cutting chart; use of color for identification of forms; combination printing, and "family" resemblance in business printing. A liberal assortment of specimen forms, letterheads, etc., is included.

Bulletin DT-1 of the Mine Safety Appliances Co., Meade, Thomas & Braddock Aves., Pittsburgh, Penna., describes the new MSA Combustible Alarm, an instrument for continuously sampling atmospheres where combustible vapors may be present, which provides an electrical warning when the concentration of such vapors exceeds a predetermined limit.

U. S. Rubber Products, Inc., 1790 Broadway, New York City, announces a new 112-page manual on industrial packing materials, including sheet packing, gaskets, rod and plunger packings, hydraulic packings, flax and jute, locomotive and special oil industry packings, and pump valves. It contains tables for pertinent engineering data and several recommendation charts for selecting the proper material for specific needs.

Bulletin M-975-B34 of the Worthington-Gamon Meter Co., Harrison, N. J., presents a line of heavy duty disc-type water meters for hotels, apartment buildings, mercantile establishments, large office buildings, and manufacturing plants. They are available for either circular or straight reading, and with registers indicating gallons, cubic feet, or metric measure.

DEPENDABLE *Rag-Content* THIN PAPERS

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**25%
Rag**

For Office, Factory and Advertising Uses. A crisp, firm rag-content sheet of unusual strength and attractiveness. Lends originality, effectiveness and punch to Direct Mail pieces. Perfect for numerous carbon copies. A quality Thin Paper at low cost.

..... VALLEY *Onion Skin*

**100%
Rag**

For all uses where greater impressiveness, strength and appearance are necessary, VALLEY ONION SKIN is especially suited to price sheets, specification forms, acknowledgments, credit forms, and foreign and air-mail correspondence. Carried in a variety of sizes, colors, weights and finishes.

- These THIN PAPERS are made in a Mill that has been famous for its fine quality rag papers since 1866.

SEND FOR SAMPLE BOOKS, and USE THESE QUALITY THIN PAPERS FOR PERFECT SATISFACTION.

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Paper Company
HOLYOKE • MASS.



The MODERN BLADE

With Easy-Starting Teeth

Fine teeth on forward end of blade wins approval of thousands of mechanics, because it is the most practical for every purpose.

1. Starts cut at any angle.
2. Teeth will not catch in corners.
3. No scraping to begin cut.
4. Reduces cutting time.
5. Will not slip off cutting line.
6. Distributes wear full length of blade.

THERE IS NO WRONG WAY TO USE DUPLEX BLADES.

Ask your mill supply distributor for prices. They cost no more than the old fashioned saw.

THE HENRY G. THOMPSON & SON CO.

NEW HAVEN, CONN.

Saw Makers for over Half a Century

Dip-Spra Bonderizing, a new method of corrosion protection, is described in an attractive folder issued by Parker Rust-Proof Co., 2177 E. Milwaukee Ave., Detroit.

Logemann Brothers Co., Milwaukee, have issued in loose-leaf form a catalog compiled from various individual bulletins covering their complete line of baling presses, scrap metal presses, bundling presses, hydraulic presses and pumps, shaft and pipe straighteners, die-cutting presses, and hydraulic machinery.

Galland-Henning Mfg. Co., Milwaukee, present a series of bulletins on compressing and baling machines, featuring a doorless model particularly adapted to installation in limited quarters.

"An Album of Familiar Belts" is a folder recently released by United States Rubber Products, Inc., 1790 Broadway, New York City. It contains twenty-five reproductions of photographs taken in the field and factory, showing unusual and interesting installations of transmission belts in a variety of industries, as well as a number of exceptional camera studies by Margaret Bourke-White at the company's Passaic laboratory and factory, constituting an abbreviated but highly interesting tour of a modern transmission belt factory.

Bulletin 301 of the Pittsburgh-Des Moines Steel Co., 3415 Neville Island, Pittsburgh, Penna., is an 8-page pictorial folder devoted to typical illustrations of steel construction in a wide variety of public and industrial buildings and steel plate used in tanks, pools, reservoirs, stacks, penstocks and buildings.

Esleeck Mfg. Co., Turners Falls, Mass., has issued a new book of specimens and samples of Fidelity and Emco onion skin papers. The specimens illustrate the use of thin papers for letterheads, legal and insurance forms, copy sheets and air mail stationery, bank records, purchase orders, inquiry forms, invoices, factory and office forms, envelope enclosures and advertising folders.

Catalog No. 699D of C. J. Tagliabue Mfg. Co., Park & Nostrand Aves., Brooklyn, N. Y., covers oil testing instruments, containing listings and descriptions and technical information on every oil testing instrument of importance, including thermometers, hydrometers, colorimeters, viscosimeters, flash and fire test apparatus, distillation apparatus, etc. In addition, there is an official guide and index to the principal tests on petroleum products, and a complete set of charts for determining viscosity index, com-

paring viscosities at various temperatures, blending and determining gravity corrections.

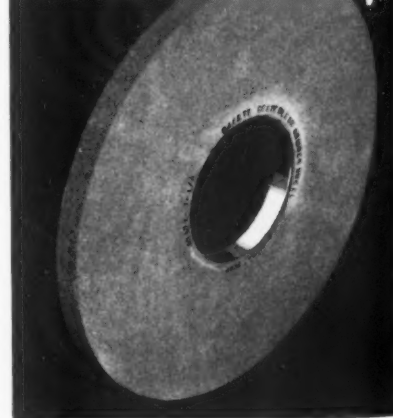
Bulletins 104-9E and 104-9G of the Colonial Broach Co., 147 Jos. Campau Ave., Detroit, describe, respectively, a line of utility broaching presses from 6 to 15 tons capacity, and new heavy-duty "Pullup" broaching machines in five models from 10 to 20 tons capacity.

"Scrap and America" is the title of an informative 30-page booklet showing in picture, diagram, statistics, and comment the importance of iron and steel scrap in the industrial economy, leading to the conclusion that exportation of this material should be limited by government action in the interests of the national welfare.

"Nation-wide Air Express" is the theme of a new folder issued by the Air Express Division of Railway Express Agency, New York, setting forth the facilities and costs of this growing method of transportation.

"Yale Hoisting Equipment", a new 20-page booklet of the Yale & Towne Mfg.

NOTEWORTHY!



The customer turn-over at Safety is probably the lowest in the grinding wheel industry. Once a customer—always a customer seems to be the rule.

Grinding wheels for any purpose. High grade portable and floor grinders.

The Safety Grinding Wheel and Machine Co.

Springfield, Ohio.

SAFETY

Co., Philadelphia, presents a comprehensive line of chain and electric hoists, trolleys, etc., and a convenient check-list of important points to be watched by the buyer of such equipment.

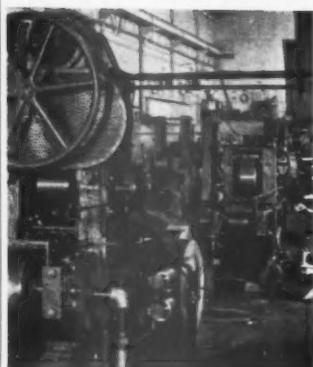
A new folder describing portable recording thermometers and electrical operation recorders, such as are used in the refrigeration, heating, and air conditioning industries, has been compiled by the Practical Instrument Co., 2717 N. Ashland, Chicago, Ill.

Continental Screw Co., New Bedford, Mass., has issued an attractive new catalog covering the Holtite line of screws, bolts, nuts, rivets, escutcheon pins, and chair rods. The text includes in convenient form a wealth of practical data on dimensions and tolerances, packing methods and shipping quantities, holding power and methods of application. A unique method of binding and indexing adds materially to the usefulness of the publication.

Folder 2137-D of W. C. Heller & Co., 1718 Broad St., Montpelier, Ohio, presents a line of modern stock room cabinet equipment, including both general items and special cabinets for small parts, handy cabinets, drill cases, etc. The folder is completely illustrated, both as to cabinet styles and drawer styles.

A new booklet, No. 4164, issued by Oakite Products, Inc., 22 Thames St., New York, N. Y., describes and illustrates a new method of bacteria control in connection with air conditioning equipment for public and office buildings, manufacturing plants, hospitals and institutions, food and packing plants, etc. The material operates by maintaining a condition of cleanliness and sterility in the wash-water and humidifiers, so that the recirculated air is practically free from bacteria, resulting in better atmospheric conditions and preventing infection, germination, and air contamination that frequently is responsible for spoilage, discoloration, and the like in a variety of products.

Bulletin L-612-B3 of the Worthington Pump & Machinery Corp., Harrison, N. J., is a well illustrated 20-page booklet covering a new line of improved opposed steam-driven compressors, featuring dual cross-head design, positive alignment, feather-type valves, and effective cooling which results in low power consumption.



● **AQUAGRAF**—another GRAFO Product for industry, is used in the manufacture of resistance elements; as a base for electroplating of non-conductors; as a parting compound and mould lubricant; for drawing tungsten, molybdenum and many other metals; as a steam cylinder and compressor lubricant; for the elimination and prevention of boiler scale; in the manufacture of opaque and lithographic inks; and many other special applications.

Write today for free literature on **GRAFO and AQUAGRAF**

Mr. Purchasing Agent: PROTECT YOUR PRODUCTION...use *Grafo*

● Pure colloidal graphite as contained in GRAFO is the best insurance for continuous operation; it is "TODAY'S LUBRICANT FOR TODAY'S INDUSTRY."

Few investments will show as great a return as GRAFO treated lubricants.

Friction losses are surprisingly reduced, wear is retarded and breakdowns practically eliminated. Shocks that easily break an oil film will not break the grafoil film established by the use of GRAFO products; therefore, wear and distortion are minimized.

Supplied in concentrated and semi-concentrated forms, GRAFO may be used economically at all times wherever lubrication is required.

Protect your production with a grafoil film on all bearing surfaces; not effected by any heat under the temperature of the electric arc.

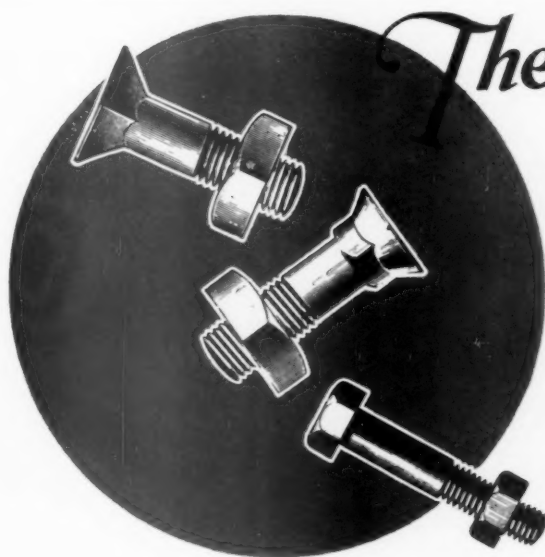
GRAFO LUBRICANTS CORPORATION

MANUFACTURERS OF



COLLOIDAL LUBRICANTS

SHARON, PENNSYLVANIA



These are

The bolts that assure you complete satisfaction.

Every single bolt in every shipment, whether it be box or carload, is clean, accurate, uniform and well finished.

REMEMBER THE NAME
WHEN IN NEED OF
BOLTS, NUTS, SCREWS OR RIVETS



Since '54 **CLARK BOLTS**



**On the Job...
LONG AFTER
OTHER VALVES FAIL**

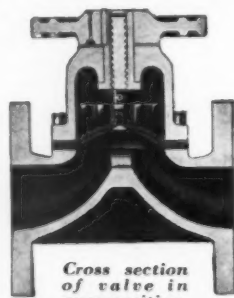
You really get two valves for the price of one, in point of service, from Hills-McCanna Saunders' Patent Valves—because of their long life and low upkeep.

The diaphragm, opening and closing medium, being replaceable, constitutes practically the only repairs necessary and these are accomplished quickly and at low cost.

The Valves do not leak, stick, break or wire draw and are used for handling acids, alkalis, dyes, liquors, chemicals, as well as viscous or gritty substances, compressed air, water, etc., without operating difficulties generally experienced with ordinary valves.

Available in 1/2" to 12" sizes, with bodies of bronze—stainless steel—or cast iron lined with lead, glass or rubber.

Send for interesting catalog



Cross section of valve in open position. Note how diaphragm opening and closing medium isolates and protects operating parts.

HILLS-McCanna Co. 2437 NELSON ST. CHICAGO

HILLS-McCanna
SAUNDERS' PATENT
**VALVES for CHEMICALS
AIR • WATER**

Commodity Futures

A sharp decline in commodity futures markets during the last week of April was accompanied by widespread distress selling of the more extended positions. A considerable part of this liquidation movement had its origin in Britain. It was emphasized by several contributing factors, chief among these being (1) the volume of speculative buying during the preceding price advance, (2) the seasonal uncertainty of crop markets dependent on weather conditions, and (3) recently announced governmental policy against unduly high commodity prices, which was in direct contrast with previous attempts to raise the general price levels. The effects of this development were principally felt by professional speculative operators. Many of the commission houses have increased margin requirements in the markets most drastically affected, but they hesitate to go farther in this direction lest the hedging function of the markets be curtailed.

Standard Invoices

(Continued from page 20)

Of the few expressing an opinion regarding the percentage of invoices which they receive bearing the special section, the estimates given were 40%-50%. This checks against our returns showing 37%. One writer in the metal-working field stated that a check made four years ago showed about 30% of incoming invoices bearing the special section, whereas a recent check showed 50%.

The answer to what should be done for the present, at least, is probably given in the following quotation from one of the replies:

"In spite of the fact that we do not use it, we would advise keeping it intact with the hope that force of numbers will eventually make the custom universal."

Car Loadings

(Continued from page 31)

on truck loadings reveal that general merchandise accounted for the largest tonnage reported, approximately 56% of the total. Informa-

tion has been solicited on textiles, machinery, refrigerated products, agricultural products, leather, stone, lumber, livestock, and tobacco, but replies have so far been too scattered to indicate a definite trend.

Teamwork

(Continued from page 13)

The attempt to keep the salesman who loses an order in a more or less friendly frame of mind is one of the most fascinating problems with which we are blessed. I mean those words just as they are expressed. Of course, you will find in this classification certain individuals who simply can't be satisfied; but, on the whole, if the salesman is treated as we ourselves would like to be treated in a similar case, the chances are that little by

POSITION WANTED

Junior Executive, Harvard Business School graduate, experienced in supply and material purchasing for large distribution business, wishes to make change into industrial field, preferably as assistant to Purchasing Agent. Address Box 500, c/o PURCHASING, 11 West 42nd St., New York, N. Y.

FOR SALE

Sheldon Colorimeter in good condition. Priced reasonable for quick sale. Address Box 301, c/o PURCHASING, 11 West 42nd St., New York, N. Y.



Improved

WIREGRIP BELT HOOKS

WIREGRIP comes on processed cards that prevent waste—every hook can be used. Protects fingers. Applied with a WIREGRIP lacer or any other standard make belt lacing machine.

Flexible BELT LACING

STEELGRIP is a stronger lacing for all power and conveying belts. Clinches smoothly into belt, compresses ends, prevents fraying. 2-piece hinged rocker pins prevent excessive wear. In boxes or long lengths.

Write for Catalog

ARMSTRONG-BRAY & CO.

"The Belt Lacing People"

321 N. Sheldon St.
Chicago, U. S. A.

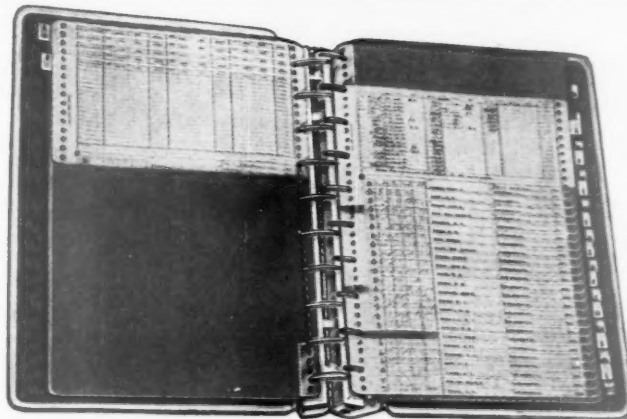


little he will understand our problem. This could even extend to those cases where the salesman shows considerable anger and expresses that anger by pointed reference to our honesty, ancestry and so forth. Sometimes that salesman is angry because the loss of that order may mean the loss of food for his children or some little comfort long looked forward to by himself or his wife. His human relationship is in error when he loses his temper, and he does not forward his case by such action. Nevertheless, ours is no better if we do not try to look behind the curtain and understand the why of that anger.

I realize that there are individuals who are salesmen, just as there are individuals in other walks of life, who never can be made to understand the fairness of a decision if they happen to lose by it. However, trying to find out the forces which are behind a salesman's action, and trying to understand and play along with those forces make a fascinating game and one which carries with it large personal dividends.

WHAT WE HAVE been talking about shows up in our attitude, our outlook, and our conduct. There is no disease so infectious as a man's attitude. We must try to do two things: avoid worry, which is effective only as a drain on us; and to say "Yes" instead of "No" whenever possible. All the platitudes on yes-men to the contrary—it does not apply to our profession. We say "No" too easily. We are trained in high-pressure resistance just as salesmen are trained in high pressure of a reverse order.

Teamwork in a corporation, and particularly in one's daily life, is a matter of human relations. The first step in human relations has been emphasized, that is, the necessity for a knowledge of the things which motivate the individual in his reactions to other individuals and to his own environment. The fears which were mentioned earlier in this article have a



VISIBLE RECORD BOOKS WILL SPEED YOUR WORK AND INSURE ACCURACY

Purchase Records, Quotation Records and Perpetual Inventories are among the most active and most valuable records of an organization. For this reason, they should be maintained in Visible Record Binders for quick reference and protection against loss.

Send For Sample Forms and Literature

We regularly carry in stock a wide range of forms especially designed for purchasing offices—as well as records for other departments of a business. Write for complete booklet—it illustrates and describes up-to-date methods of interest to the Purchasing Agent. We also carry all types of binders—get our prices on Record Keeping Equipment.

THE C. E. SHEPPARD COMPANY

4401 — 21st Street



Long Island City, N. Y.

P.S. —TO P.A.'S

You can save yourself a lot of time and trouble, by automatically turning to Pulmosan when you need safety equipment. Here, from one source, you can buy "Everything for Industrial Safety," with assurance of dependability, service and fair price. The Pulmosan catalog is a handy buying guide. Write for your copy.

PULMOSAN SAFETY EQUIPMENT CORPORATION

Dept. P, 176 Johnson St., Brooklyn, N. Y.

Double the Efficiency of Your Office Help !

How?—Get and *keep before* you the Almanac of Office Equipment. You need it.

It Pays for Itself Over and Over

It *doubles* the value of every piece of office equipment by explaining and illustrating how to *care for and operate* and it also tells how to get *New and Unusual uses of these machines*.

Typewriters
Standard and Portable
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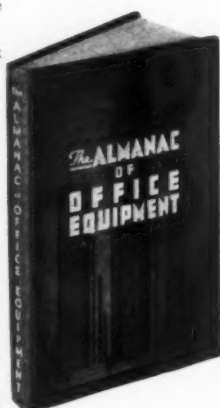
Dictating Machines
Dictaphone
Ediphone

Adding Machines and Calculators
R. C. Allen Corona
Allen-Wales Dalton
Friden Marchant
Monroe Victor
Remington-Rand
Sunstrand

Duplicators
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Niagara

Addressing Machines
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Bookkeeping Machines
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Besides authentic instructions for the care and operation of office equipment the ALMANAC gives much valuable information on subjects such as Correct Business and Personal English, Accepted Forms of Address for Business and Personal Use, How to Write Business Letters, How to File Business Papers, Touch Typing, etc.

Your machines, if properly used and cared for, will give you vast economies in time and effort. Heavy losses or severe damage may result if a machine is operated when improperly adjusted, or when some minor part is not functioning in perfect order.

The book the business world has long needed! The Almanac, a complete and authoritative reference book on office machines, is the only book of its kind; profusely illustrated, and bound in waterproof cloth—gold embossed, and reinforced for durability. 384 pages of real, usable facts and business helps! Page size 6 x 9. Fully indexed! Price, \$2.50 postpaid.

THE ALMANAC OF OFFICE EQUIPMENT

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EXAMINE IT FREE Send No Money
Mail This Coupon

The Almanac of Office Equipment
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Send me *The Almanac of Office Equipment* for 5 days' examination on approval. In 5 days I will send \$2.50 or return book postpaid. (5% discount for cash with order.)

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Position.....
Company.....

great influence upon our relations with others, and their elimination is of vital import in our own contentment.

There is one other thought which should be emphasized in this particular connection, and that is the ineffectualness of worry. The late, great Sir William Osler, of Johns Hopkins University, has written simply and beautifully about this matter of worry. In his book, *A Way of Life*,³ Dr. Osler goes on to write:


"A few years ago a Christmas Card went the rounds, with the legend 'Life is just one "darned" thing after another,' which, in more refined language, is the same as saying 'Life is a habit,' a succession of actions that become more or less automatic. . . .

"Now the way of life that I preach is a habit to be acquired gradually by long and steady repetition. It is the practice of living for the day only, and for the day's work, *Life in day-tight compartments*. 'Ah,' I hear you say, 'that is an easy matter, simple as Elisha's advice!' Not as I shall urge it, in words which fail to express the depth of my feelings as to its value. . . .

"I stood on the bridge of one of the great liners, ploughing the ocean at 25 knots. 'She is alive,' said my companion, 'in every plate; a huge monster with brain and nerves, an immense stomach, a wonderful heart and lungs, and a splendid system of locomotion.' Just at that moment a signal sounded, and all over the ship the watertight compartments were closed. 'Our chief factor of safety,' said the Captain. 'In spite of the *Titanic*,' I said. 'Yes,' he replied, 'In spite of the *Titanic*.' Now each one of you is a much more marvellous organization than the great liner, and bound on a longer voyage. What I urge is that you so learn to control the machinery as to live with 'day-tight compartments' as the most certain way to ensure safety on the voyage. Get on the bridge, and see that at least the great bulkheads are in working order. Touch a button and hear, at every level of your life, the iron doors shutting out the past—the dead yesterdays. Touch another and shut off, with a metal curtain, the Future—the unborn tomorrows. Then you are safe—safe for to-day! . . .

"Shut off the past! Let me the dead past bury its dead. So easy to say, so hard to realize! The truth is, the past haunts us like a shadow. To disregard it is not easy. . . .

³This material is quoted with the permission of the publisher of *A Way of Life*, The Remington-Putnam Book Company, Baltimore, Maryland.

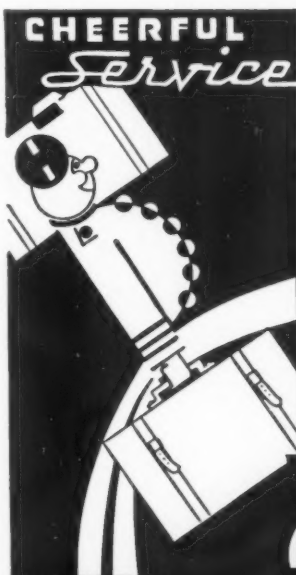


TRADE MARK

**ALUMINUM OXIDE
SILICON CARBIDE
CORUNDUM
(AFRICAN)
TURKISH EMERY**

Refiners and Makers
of
**ABRASIVE GRAINS
AND
FLOURS**

AMERICAN ABRASIVE COMPANY
WESTFIELD, MASS.



**CHEERFUL
Service**

IN THE HEART OF CHICAGO

**BISMARCK
HOTEL CHICAGO**
RANDOLPH AND LA SALLE

Emil Eitel - Karl Eitel - Roy Steffen

"Shut out the yesterdays, which have lighted fools the way to dusty death, and have no concern for you personally, that is, consciously. They are there all right, working daily in us, but so are our livers and our stomachs. And the past, in its unconscious action on our lives, should bother us as little as they do. The petty annoyances, the real and fancied slights, the trivial mistakes, the disappointments, the sins, the sorrows, even the joys—bury them deep in the oblivion of each night. . . .

"The load of to-morrow, added to that of yesterday, carried to-day makes the strongest falter. Shut off the future as tightly as the past. No dreams, no visions, no delicious fantasies, no castles in the air, with which, as the old song so truly says, 'hearts are broken, heads are turned.'

"Waste of energy, mental distress, nervous worries dog the steps of a man who is anxious about the future. Shut close, then, the great fore and aft bulkheads, and prepare to cultivate the habit of a life of Day-Tight Compartments. Do not be discouraged—like every other habit, the acquisition takes time, and the way is one you must find for yourselves. I can only give general directions and encouragement, in the hope that while the green years are on your heads, you may have the courage to persist. . . ."

And I think the good Doctor would have agreed that we can adopt his philosophy and still buy futures and insurance, and perhaps age a little good Bourbon from time to time.

You may well wonder what this has to do with teamwork, and yet it has been pointed out heretofore that we are none of us ready for teamwork in life until, to stretch the comparison perhaps somewhat, we have teamwork within ourselves. Dr. Osler has beautifully summed up his philosophy as to this subject in a poem translated from the Sanskrit and entitled "The Salutation of the Dawn."

"Listen to the Exhortation of the Dawn!
Look to this Day!

For it is Life, the very Life of Life.

In its brief course lie all the

Varieties and Realities of your Existence:

The Bliss of Growth,

The Glory of Action,

The Splendour of Beauty:

For Yesterday is but a Dream,

And Tomorrow is only a Vision,

But Today well lived makes

Every Yesterday a Dream of Happiness,

And every Tomorrow a Vision of Hope.

Look well, therefore, to this Day!

Such is the Salutation of the Dawn."



AIR EXPRESS
- THAT MEANS
RUSH!

Three-mile-a-minute speed is no further away than your telephone. When minutes mean money, call any Railway Express office for the *only* nation-wide AIR EXPRESS service. It saves time, worry, and money because AIR EXPRESS flies your shipments 2500 miles overnight.—offers you day and night service direct to 216 cities in the United States and Canada—and to Honolulu, Guam, Manila and 32 Latin-American countries. If it's RUSH, remember, phone RAILWAY EXPRESS.

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DIVISION
RAILWAY EXPRESS
AGENCY, INC.

COILED WIRE SPRINGS

WIRE FORM SPECIALTIES



Springfield, Ohio, U. S. A.

"Where Your Patronage
Is Appreciated"



Tops!

PERMEX

PERMEX is at the Peak of perfection. It maintains a perfect balance in legibility, brilliant color, permanency, drying qualities, no sediment, free flowing, non-corrosiveness.

Permex is "tops" in writing qualities and economy.

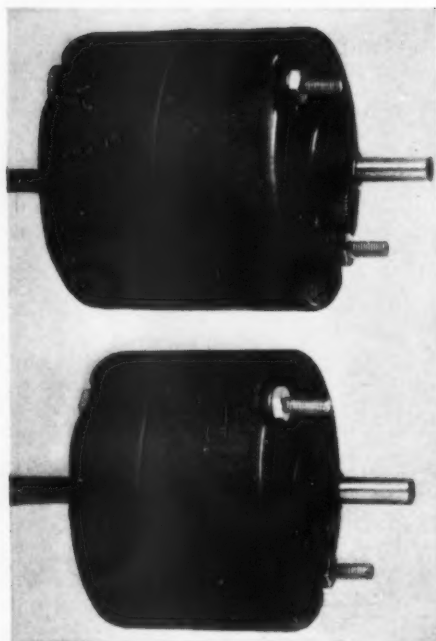
Write for folder and prices.

*REG. U. S. PAT. OFF.

THE AMERICAN CRAYON COMPANY

550-550 HAVES AVENUE, SANDUSKY, OHIO 200 FIFTH AVENUE, NEW YORK CITY
116 NEW MONTGOMERY STREET, SAN FRANCISCO SANTA ANA BUILDING, DALLAS, TEXAS

NEW PRODUCTS & IDEAS



**SMALL
MOTORS**

No. 396

COMBINING COMPACTNESS and small current requirements together with full power according to rating, these fractional horse-power electric motors are provided to meet a wide range of service demands. They are the self-starting induction type and made for both intermittent and continuous running, in small electrically driven apparatus of many kinds. Adapted for electric heaters for automobiles and motor buses, various kitchen utilities for hotel, restaurant and home use, such as mixers and juice extractors, home workshop application, small electric drills, model electric trains, and a wide variety of other purposes. Included are reversible motors for automatic tuning on radios. They are precision-made, and are responsibly guaranteed for satisfactory service if and when supplied to customer's technically correct specifications.

PURCHASING

11 West 42nd St.
New York, N. Y.

Please send complete data on the New Products listed by number below:

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Name

Company

Address

City State

PAGE 70



No. 397

INTERCHANGEABLE STENCILS

INDIVIDUAL LETTER stencils of high quality spring brass are so formed that they may be interlocked quickly and easily to form any desired combination. When the combined stencil has served its purpose, it can just as readily be disassembled for compact storage or for use in some other set-up. In ordinary use these stencils will last indefinitely, resulting in real economy. Made in sizes from $\frac{1}{2}$ to $2\frac{1}{2}$ inches, and packed in several assortments similar to fonts of printers' type to fill any quantity requirement.

See coupon below

INK MARKING PENCIL

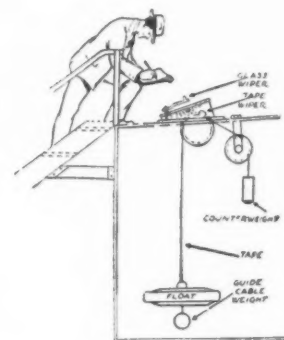


No. 398

THIS PENCIL FOR THE marking of boxes, bales, cartons, crates, lumber, etc., consists of an ink fountain in the handle, feeding to a felt tip. The tip is furnished either pointed or with chisel edge. Overall length is 10 inches, with capacity for several hours of continuous use. In the recently improved design, a sleeve cap fits over the tip when not in use, preventing the ink from making unwanted smudges on material or from carrying out upon the surface of the holder.

See coupon at left

FLOAT GAGE



No. 399

LIQUID LEVEL IN closed tanks or containers can be read without opening the tank by means of the measuring equipment illustrated. An aluminum float and counterweights are attached to a graduated tape of stainless steel, the markings on which are read through a window in the tank roof, thereby indicating the position of the float. Clear vision is insured by means

PURCHASING

of a wiper on the under surface of the window and another on the tape. The window housing will withstand tank pressure up to 50 pounds per square inch.

See coupon page 70

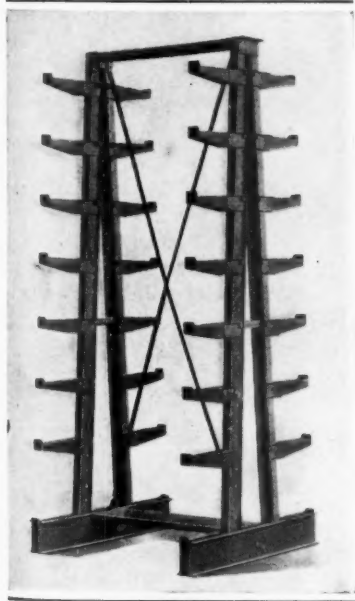


OZONATOR

No. 400

THIS OZONE GENERATOR is available in two sizes, capable of ozonating 8,000 and 20,000 cubic feet of air, respectively. A new type circulator has replaced the ordinary electric fan in these models, building up a spiraling and pulsating air stream which draws in air from all sides and levels, giving a faster and wider volume of air distribution, and greatly increasing the effectiveness of the unit. Attractively finished with jet black bakelite panels and chromium plated trim.

See coupon page 70



PIPE AND BAR RACK

No. 401

THIS SPECIAL RACK for pipe and bar stock is sturdily assembled and braced. It is equipped with fourteen sets of brackets, adjustable to height by 3-inch intervals. Each bracket will support a load of 200 pounds. The brackets have a front lip to keep stored material in place, and have a clear depth of 12 inches. For storing other types of material, a 12-inch shelf may be placed on the brackets. The base channels are also made with a lip so that they may be used for storage purposes. Additional units consisting of one upright assembly and connecting members can be used to accommodate material of any length.

MAY 1937

EVER SEE THE "MISSING" LINK?

We're not testing your knowledge of anthropology. We're simply calling to your attention a very useful "missing" Link, used for joining or repairing heavy-duty Chains. When you get down to cases, there's actually *nothing* "missing" from the very extensive McKay Chain line. Everything's there—and everything's A-No. 1 in *quality*—because of "McKay's 50 years of knowing how."

Send your Chain inquiries or orders to . . .

THE MCKAY COMPANY
McKAY BUILDING PITTSBURGH, PA.
(Formerly U. S. Chain & Forging Co.)

"Knowledge . . . is a basic qualification
for competent purchasing"
... From PURCHASING
for April 1937

Competent cleaning knowledge always available!

Oakite Service Men are acquainted with every factor that influences cleaning results. You can depend on their recommendations, for they incorporate the knowledge we have acquired in twenty-nine years serving the Nation's leading industrial concerns.

Adapted to your particular problem, this knowledge points the way to improvements in cleaning practices, reductions in cleaning costs. Write today to have our Service Man call.

Manufactured only by

OAKITE PRODUCTS, INC., 54 Thames St., New York, N. Y.
Branch Offices and Representatives in All Principal Cities of the U. S.

OAKITE
SPECIALIZED INDUSTRIAL CLEANING MATERIALS & METHODS

PAGE 71

BUY



The most popular tape on the market. The extra strength of Northern Kraft—faster and permanent sticking—full basis weight, width and length.

Trojan GUMMED TAPE

The Gummed Products Co.

OFFICES TROY, OHIO MILLS
MAKERS OF STERLING "TREAD" GUMMED TAPE
Sales Branches: Chicago, Cincinnati, Cleveland, Los Angeles,
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Bituminous Coal

MINES: Scalp Level, South Fork, Hastings and La Rayne Districts of Penna., and Fairmont District of West Virginia.

SIZES: Lump — Egg — Nut — Pea — Stoker — Mine Run—Especially Prepared Coal for Pulverizing.

CORTRIGHT COAL COMPANY

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PHILADELPHIA

ONE BROADWAY
NEW YORK



Just try Barnes Blades! Tell us your cutting problem—let us suggest a blade to whip it economically.

W. O. BARNES CO., INC. Detroit, Mich.

LETTER OPENER



No. 402

THIS MOTOR DRIVEN letter opener is a high speed machine operating rapidly, safely, and cleanly. All bearings except on the motor are of the oilless type. Knives are of carbon tool steel, hardened and accurately ground. Motor is thoroughly insulated and protected from dust and paper chips. The feed mechanism is specially designed to straighten out damaged edges of envelopes and to equalize pressure on thick and thin pieces, assuring clean cutting without damage to contents. It facilitates the distribution of mail and permits an earlier start on the day's business.

See coupon page 70

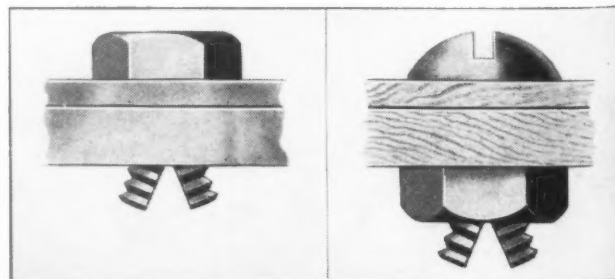
PORTABLE POLISHER AND BUFFER



No. 403

THIS NEW VERTICAL type portable polishing and buffing machine is equipped with an oval chuck of 21-inch maximum diameter. Handwheels are provided for longitudinal adjustment of stand and for loading and unloading work. A crank handle mounted to the side of the chuck base permits adjustment for eccentric setting of chuck. It is particularly adapted to buffing the inside surfaces of hollow-ware products such as trays, vegetable and salad dishes, and the like.

See coupon page 70



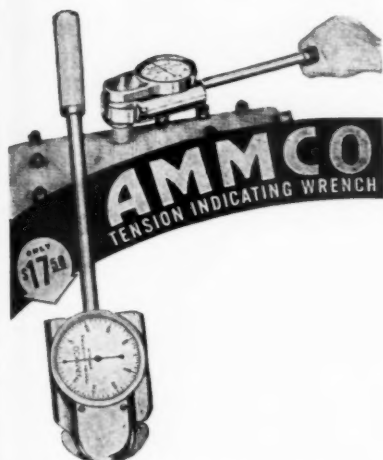
SPLIT SCREWS

No. 404

A SIMPLE METHOD FOR locking screws without the use of lock washers or lock nuts is provided by this new line of screws with split end forming a prong which can be readily spread after it has been inserted and tightened as desired. When

used with metal, no nut or washer is required. In material that cannot be tapped or threaded, a nut is necessary to tighten; otherwise the process is identical. The screws can be backed out with screw driver or wrench, assuming their original shape ready for re-use. Available in sizes from $\frac{3}{32}$ to $\frac{3}{8}$ inch.

See coupon page 70



DIAL SOCKET WRENCH

No. 405

THIS NEW SOCKET wrench has a dial indicator integrally built in to indicate the tightness of the nut on the thread. Nuts and bolts can be tightened uniformly and to any desired degree. Its accuracy is not affected by temperature changes. Made for standard sockets and fitted with $\frac{1}{2}$ -inch shank. Weight, $6\frac{1}{4}$ pounds.

See coupon page 70



BEAM REFLECTOR

No. 406

AN AUXILIARY BEAM directing reflector for attachment to standard dome reflector permits the intensification of illumination in a concentrated area such as a machine or work table. At a distance of 10 to 12 feet, this area will be about 30 to



Order a
Test Sample

Get the
Prices

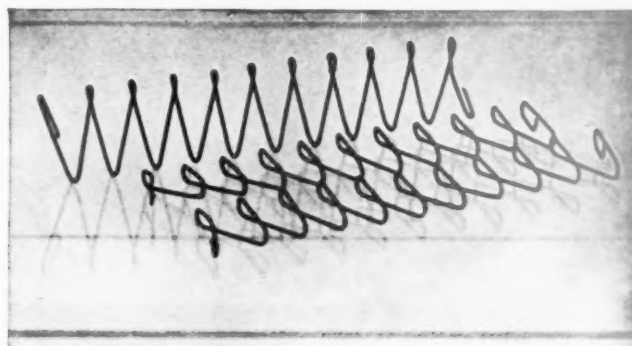
Little Motors
for Big Jobs...
You'll find Them
What You WANT

Buy Fractional Horse Power ELECTRIC MOTORS Where the Buying is GOOD

INVESTIGATE our compact precision-built fractional horse-power motors... For automobile and bus heaters—juice extractors—kitchen mixers—electric drills—hand vacuum cleaners—any such light apparatus. Reversible types for automatic radio tuning... Every motor precision-built for long, trouble-free service. Made by specialists for a generation in manufacturing light electric-powered motors.

Write us about your motor requirements. Be sure to specify required power, speed and voltage.

The GENERAL INDUSTRIES CO.
3743 TAYLOR STREET ELYRIA, OHIO



"Tension"!

Here is special-tensile, music wire spring used to keep shells moving smoothly out of a rifle magazine. Its job is to exert adequate pressure on all the shells regardless of how many have been expelled—also to move the follower squarely forward and prevent jamming. Correct material and pitch, and close calculation of resilience, accomplished the trick. But "accomplishment" is just another name for Peck service!

SEND FOR THE PECK CATALOG

It contains much valuable technical data on springs and screw machine parts. It's free.

PECK SPRINGS AND SCREW MACHINE PARTS

The Peck Spring Co. - 10 Walnut St. - Plainville, Conn.



ARMSTRONG

Drop-Forged

"C" Clamps Lathe Dogs

These are lifetime tools that do not spread or give—that can be depended on not to slip. Drop forged from special open hearth steel, they have extraordinary stiffness, toughness... strength. Screws have double wear threads, are of special steels hardened at the point. They will not "upset." Hubs of these Lathe Dogs are over-size, large enough to permit re-tapping, to give double life.

Sizes and Types for every machine shop and tool room use, each an ARMSTRONG TOOL—the finest that can be made. Write for Catalog B-35.

ARMSTRONG BROS. TOOL CO.

"The Tool Holder People"

303 N. Francisco Ave., Chicago, U.S.A.
Eastern Warehouse & Sales, 199 Lafayette St., N. Y.
San Francisco London

Chicago AUTOMATIC RIVET SETTERS WILL HANDLE RIVETS



**AS SMALL
AS THIS—**

**OR AS LARGE
AS THIS!**



A wider range of tubular and split rivets in all metals, the most complete line of power and manual automatic riveters, plus a competent consulting service makes "Chicago" best equipped to lick production problems. Send sample assembly with inquiry.

Single and Multiple Setters.

**Chicago
RIVET AND
MACHINE CO.**
1851 South 54th Street
(Cicero P.O.) Chicago, Ill.

 One of the World's Largest Manufacturers of Split and Tubular Rivets and Rivet Setting Machines 

*Do You Want More
Business in New England?*

THE DIRECTORY OF NEW ENGLAND MANUFACTURERS

Tells You Where to Find It

Lists 17,000 New England manufacturers, together with names of principal officers, description of product, number of employees, capitalization, location of plants and branch offices.

Same concerns also classified according to State, City or Town. Also alphabetical listing of all N. E. Products together with names and addresses of makers.

Indispensable for routing salesmen, organizing territorial sales campaigns and as a mailing list.

New Revised Edition—Price \$15.00

GEORGE D. HALL, INC.
665 Boylston Street, Boston, Mass.

36 inches in diameter. The attachment consists of an Alzak aluminum circular projector, a clamp, and an adjusting quadrant. Available in sizes for 200 to 500 watt lamps.

See coupon page 70

LOCK NUT



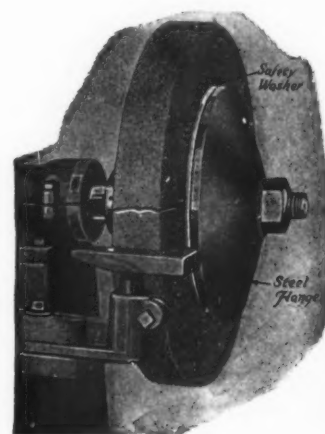
No. 407

ONE THREAD OF THE NUT in this new lock-nut design is machined a little below the thread root to form a hollow triangle with the space between the two threads on the bolt. This space is filled by a spring-steel ring, one end of which enters a radial hole in the nut so that ring and nut turn together. The free end of the ring terminates in the triangular space just short of a complete circle and the ring is positioned so that the anchored end leads when the nut is threaded on the bolt and the ring rides free. When there is any effort to back off, the ring grips the bolt tightly in a contracting action against the faces of the bolt threads. In effect the ring is a floating nut thread, free in one direction and contracting in the other. Bolt and nut are threaded standard, and sizes range from $\frac{1}{4}$ to $1\frac{1}{2}$ inches.

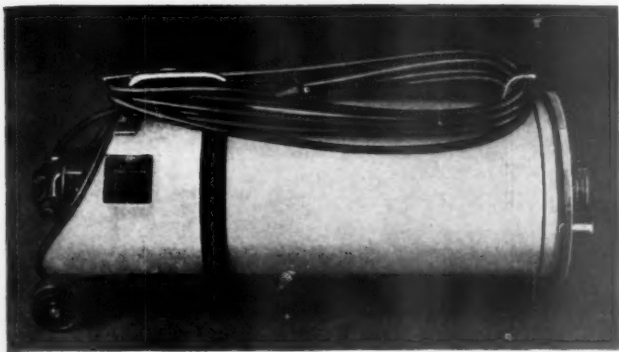
See coupon page 70

SAFETY WASHER FOR GRINDING WHEELS

No. 408



DANGER FROM FLYING pieces of a broken wheel, and the danger of breakage itself is minimized by this device consisting of a pair of metal discs to which has been vulcanized a sheet of specially prepared rubber. They are applied with the rubber adjacent to the grinding wheel. Pressure on the outside recessed steel flanges forces the rubber into the porous surface of the wheel, securing it in place. In this manner, stresses in the wheel resulting from centrifugal force are transferred, through the rubber, to the metal washer and the load carrying shaft, and in the case of breakage for any reason the pieces are held in place.



VACUUM CLEANER

No. 409

MULTI-STAGE DESIGN in this new portable industrial vacuum cleaner increases effective vacuum, resulting in faster and better cleaning. Lower speed motors reduce vibration, wear, and noise. The dust separation method includes a bag mounted within the casing and ahead of the impellers, so that only clean air passes through the vacuum machinery. Overall length, 28 inches; total weight, 25 pounds, with wheels, caster, and handle for ease in moving it about. Equipped with 25 feet of extension cord, and motors adapted to several standard type power sources; 12½ feet of flexible vacuum hose, slip-on connector and swivel coupling, and a variety of end tools adapted to all kinds of floor, wall and furniture surfaces, radiators, and special cleaning operations.

See coupon page 70



AIR COMPRESSORS

No. 410

A NEW LINE OF FRACTIONAL (¼ and ½) h.p. air compressors, rated for 150 lbs. per sq. in. maximum pressure, and equipped with reducing valves for lower pressures. Automatic start and stop control, improved check valve, automatic protec-

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HOW SPRINGS ARE MADE
BOOTH 21
The Informashow • HOTEL WILLIAM PENN



Special showings of the Barnes-made movie on Springmaking will be held at Booth 21 during the four days of the INFORMASHOW. You are cordially invited to see this informative talking-movie.

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DIVISION OF ASSOCIATED SPRING CORPORATION
BRISTOL - CONNECTICUT

SPRINGS
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WIRE
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ROLLED
SPRING
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ON LYON

STEEL BOXES



Production Executives ...

Are you interested in:
(1) Reducing costs of handling materials; (2) Saving floor space in overcrowded production departments; (3) Reducing the investment and upkeep expense on your material handling equipment?

This new, illustrated catalog contains many suggestions for making such savings. It covers shelf boxes for storage of small parts; shop and tote boxes for transportation of work in process by truck or conveyor; stacking boxes; nesting boxes; suggestions on special steel containers designed for use with specific production systems.

Send for a copy of the catalog or ask a Lyon Salesman to call. We may be able to pass on to you some benefits resulting from thirty-five years of experience in designing and manufacturing steel containers.

LYON METAL PRODUCTS, INCORPORATED, 3305 River Street, Aurora, Illinois

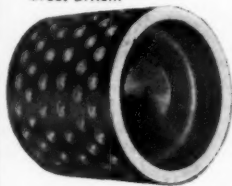
Lyon Metal Products, Incorporated, 3305 River Street, Aurora, Illinois

Please send—() Copy of New Box Catalog; () Steel Shelving; () Lockers; () Toolroom Equipment; () Folding Chairs; () Send Salesman.
Name..... Address.....
City..... State.....

LYON Service
STORAGE EQUIPMENT

LYON METAL PRODUCTS, INCORPORATED, Aurora, Illinois

Pat'd U.S.
Canada
Great Britain



30 DAY FREE TRIAL OFFER.

NO BELT SLIPS with VACUUM CUP METAL PULLEYS

GUARANTEED to:

Eliminate belt slippage and power loss because the belt is sealed to pulley at vacuum contacts... increase life of belts and equipment... enable machines to take larger cuts and operate at maximum capacity... wear indefinitely... keep belts from flying off... Sizes from 2" up to 72"... recommended for short center drives... Try one at our risk on your worst drive.

Vacuum Cup Metal Pulley Co., Inc. 1010 Ford Bldg. Detroit, Mich.

A Preferred Location in
NEW YORK

**600
ROOMS**



\$2.
SINGLE WITH BATH
DOUBLE WITH BATH **\$3.**

Convenience is one of the foremost features of Hotel Imperial—plus the utmost in comfort and economy... Dining Room prices are low... Lunch 50¢ Dinner 70¢

**HOTEL
IMPERIAL**

32nd. & BROADWAY • ONE BLOCK FROM PENN. STATION

• *Ever Ready* **ROLL LABELS** •
FOR SPEED • FOR ECONOMY • FOR CONVENIENCE



**308
LABELS
ADDRESSED
IN AN
HOUR**

Ever Ready
world's largest producer of printed gummed labels, is HEADQUARTERS for ROLL LABELS! Our twenty-five years' experience serving 30,000 label users has taught us how to attain economy & "streamline" efficiency in ROLL LABELS. We make every kind... for every use!

IDEAS! SEND FOR THE NEW COLORFUL 48 PAGE LABEL BOOK NO OBLIGATION!

LABEL HOLDER FREE!

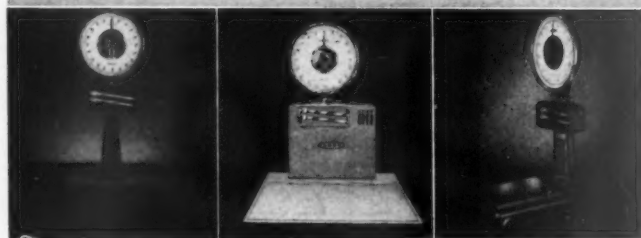
Ever Ready **LABEL Corporation**
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DIAL SCALES
for industry's every need

THE **KRON CO.**
BRIDGEPORT CONN.



tion switch against over-voltage or underload. New style 2.4 cu. ft. tank of seamless steel, less than 35 inches high. The 1/2 h.p. unit is also available with a 4.6 cu. ft. tank in either vertical or horizontal mounting.

See coupon page 70

**ELECTRIC
DRILL**



No. 411

THIS NEW 1/2-inch electric drill has been developed to provide a quality tool at low cost, for ordinary jobs within its range. It is light in weight, compact, and easy to handle. Its construction has been specially designed for long life and freedom from servicing requirements. Provided with GE motor enclosed in an aluminum body, Jacobs chuck, fully enclosed double pole switch, full ball bearing spindle, self-lubricating armature bearings, chuck wrench clip, and removable side handle.

See coupon page 70

**Bureau of Standards
Serves Public Buyers**

(Continued from page 22)

is finally agreed upon, it is promulgated as a Federal specification by the Director of Procurement for use by the various Government departments in the purchase of the materials specified. The specification so promulgated remains in effect until it is either rescinded or revised.

Up to January 1, 1936, the Federal Specifications Executive Committee had adopted and promulgated 1,033 "Federal Specifications"¹⁰ covering a wide range of commodities. These specifications have played an important role in Governmental purchasing, many of the States and cities using them almost exclusively on which to base contracts for their purchases. All Federal specifications are issued in printed form and are obtainable from the Superintendent of Documents, Government Printing Office, Washington, D. C., at a nominal price per copy. Any State, county, or municipal purchasing officer can request his name to be placed on the mailing list to receive announcements of new or revised specifications and thus keep abreast of the current specifications used by the Federal Government.

¹⁰ Price List No. 75 Federal Specifications, Federal Standard Stock Catalogue. Obtainable from the Superintendent of Documents, Government Printing Office, Washington, D. C. Free.

Association Meetings

(Continued from page 55)

APRIL 27

Syracuse—Annual meeting of the Syracuse & Eastern New York Association, at the Hotel Syracuse. Officers for 1937-1938 were elected as follows: *President*, Frank J. Quinn of Lamson Co.; *Vice Presidents*, Harold C. Brown of Syracuse Lighting Co., and Clarence H. Kissel of Gould's Pumps, Inc.; *Secretary*, E. E. Thompson of Syracuse University; *Treasurer*, James H. Merritt of Remington Typewriter Co.; *National Director*, Robert W. Appleton of Morse Chain Co.; *Local Directors*, Theo. Steinhorst of Emil Steinhorst & Sons, George Stanton of Syracuse Foundry Co., E. H. Van Order of Henry & Allen, and G. L. McCaffrey of Owen-Dyneto Corp.

Oakland—Luncheon meeting of the East Bay Group, Northern California Association, at the Lake Merritt Hotel. Sound motion picture, "California Giants" presented by the California Redwood Association.

Tulsa—Closed meeting of the Tulsa Association. Continuation of the discussion of purchasing department procedure.

Wethersfield—Meeting of the Connecticut Association. Tour of inspection through the State Prison, with talk by Warden Ralph H. Walker. Dinner meeting at Wethersfield Country Club. Speakers: Donald Vaughn of Aetna Life Insurance Co., Hartford, "Highway Accidents—a Purchasing Agent's Problem"; Fred W. Sehl of Aetna, demonstrations of common fire and explosion hazards—dust, gasoline, flash-fires, spontaneous combustion.

APRIL 29

San Francisco—Luncheon meeting of the Northern California Association, at the Palace Hotel. Speaker: Paul E. Holden, Professor of Industrial Management, Stanford University, "Current Trends in Business Management."



MARVEL High-Speed Edge HOLE SAWS

A genuine high speed steel cutting edge, an unbreakable alloy steel body . . . here at last are hole saws built to industrial tool standards. Strength for drill press use and the set that permits deep drilling. A new tool and a means for cutting large holes at low cost. Far faster than drilling and requiring far less power, size for size, MARVEL Hole Saws greatly increase the capacity of small drill presses. All sizes from $\frac{3}{8}$ " to $4\frac{1}{8}$ " diameters.

for portable drills and drill presses

Write for Circular
ARMSTRONG-BLUM MFG. CO.
 "The Hack-Saw People"
 360 N Francisco Ave. Chicago, U. S. A.

SAVE AS MUCH AS 40% OF YOUR DRAFT-
ING COSTS WITH

**MARS
LUMOGRAPH
Pencils**

Engineering and Architectural Offices that have standardized on Mars Lumograph Drawing Pencils are effecting gratifying savings which in some instances are as great as 40%. This saving is made possible because of the special light resisting element in Mars lead that renders lines approximating the opaqueness of India Ink.

Perfect reproductions are made direct from your Mars Lumograph tracings, eliminating "inking in." Furthermore, the unusually fine grinding of the elements in Mars Lumograph leads insures against "hard spots", eliminating the danger of mutilating tracings.



Select the Mars Lumograph Pencils for your own requirements. They'll make good on any test.

Obtainable in 13 degrees (EXEXB to 6 H) 15c each.

J. S. STAEDTLER, Inc. 53-55 Worth St., New York

Mail the coupon today to any of the addresses listed

Charles Bruning Co., New York City, N. Y. and branches
 Keuffel & Esser, Hoboken, N. J. and branches

Gentlemen—Enclosed find \$..... Please send postpaid—Mars Lumograph Pencils as checked.

Quantity	Number	Degree
.....

Name.....
 Street.....
 City..... State.....
 My dealer's name is..... PU3

*Made Right
Priced Right*

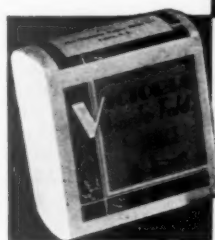
VICTORIA SINGLE FOLD

White, absorbent, sanitary. 1000 single fold sheets, $4\frac{1}{2}$ " x 5", for dispensing two sheets at a time from cabinets. (See below)



BLACK CORE ROLL

White or manila, silky in texture, in either 2000, 3000, or 4000 sheetrolls. Threesizes: $4\frac{1}{2}$ x $4\frac{1}{2}$, $4\frac{1}{2}$ x $4\frac{1}{2}$, $4\frac{1}{2}$ x 5. (See left)



VICTORIA DOUBLE FOLD

White, manila or full bleached. 800 inter-folded sheets per package, dispensed two sheets at a time from cabinets. 125 packages per carton. 3 sizes: 4 x $5\frac{1}{4}$, $4\frac{1}{2}$ x $5\frac{1}{4}$, and 5 x $5\frac{1}{4}$. (See right)



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